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FISHERY STATISTICS OF THE WESTERN PACIFIC
VOLUME XVII

Territory of American Samoa (2000)

Commonwealth of the Northern Mariana Islands (2000)

Territory of Guam (2000)

State of Hawaii (2000)

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PREFACE

In recent years, the demand for data and information concerning marine fisheries has greatly increased. To help meet these increased needs in the central and western Pacific areas, the National Marine Fisheries Service's (NMFS) Southwest Fisheries Science Center (SWFSC) initiated the Western Pacific Fishery Information Network (WPacFIN) to assist Pacific island fisheries agencies in upgrading their data collecting, processing, and reporting capabilities.

In 1982, these agencies formed a Fisheries Data Coordinating Committee (FDCC) and a FDCC Technical Subcommittee to help guide, coordinate, and monitor all of their fisheries data-related activities. Significant progress has been made by all participating agencies, particularly in the areas of upgrading data collecting and processing systems.

In a major step to improve and coordinate the data reporting and distributing systems of the agencies, in May 1985 the FDCC agreed to produce a combined document reporting each island's major fisheries statistics. Production of the document would be the responsibility of the FDCC Technical Subcommittee and would be coordinated by the WPacFIN Program Manager. Each agency would supply the data required to produce the tables and graphs for its respective chapter of the report, and central WPacFIN staff would produce and distribute the document as part of the Administrative Report Series of the Southwest Fisheries Science Center.

This document is the seventeenth volume in the series "Fishery Statistics of the Western Pacific" and contains year 2000 summaries of commercial landings for American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and Hawaii. As with previous volumes, this volume is divided into sections, one each for the major island areas.

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BACKGROUND

This report is compiled by fisheries agencies participating in the Western Pacific Fishery Information Network (WPacFIN, formerly referenced as WPACFIN). A collaborative effort between agencies in Hawaii, Guam, the Commonwealth of the Mariana Islands (CNMI) and American Samoa, WPacFIN strives to improve the availability and dissemination of fisheries information. Participating groups include

American Samoa	<ul style="list-style-type: none">• Department of Marine and Wildlife Resources (DMWR)• NMFS SWR Fisheries Monitoring Field Office
Commonwealth of the Northern Mariana Islands (CNMI)	<ul style="list-style-type: none">• Division of Fish and Wildlife (DFW)
Guam	<ul style="list-style-type: none">• Division of Aquatic and Wildlife Resources (DAWR)• Department of Commerce (DOC)
Hawaii	<ul style="list-style-type: none">• Hawaii Division of Aquatic Resources (HDAR)• NMFS Southwest Fisheries Science Center (SWFSC), Honolulu Laboratory• NMFS Southwest Region (SWR), Pacific Islands Area Office (PIAO)• Western Pacific Regional Fisheries Management Council

WPacFIN and these groups collect, computerize, edit, and process data from these agencies. Ultimately WPacFIN staff at the Honolulu Laboratory create the summaries and graphs found in this document.

Data from DMWR, DAWR, and DFW are supplied on portable computer media in established WPacFIN database formats, whereas data for Hawaii are provided by HDAR via a dial-in telecommunications link. Once data from all agencies are put into the proper format on the central WPacFIN computer and appropriate edit, adjustment, and verification procedures completed, summary reports and files are produced using software developed by WPacFIN staff specifically for this purpose. Graphs are produced using commercially available software.

PROGRESS

In 1981 when WPacFIN began assisting agencies improve their data collecting and processing systems, only the State of Hawaii had computerized processing. By mid-1982, fisheries offices in American Samoa, Guam, and the CNMI were using WPacFIN supplied computers to process data. Since that time, these agencies have made many significant improvements to their data collecting systems and have established sound, automated data processing systems. Most agencies can now provide preliminary fishery statistics to WPacFIN within 45 days of the date of collection.

In particular, the HDAR has significantly improved its procedures for editing, updating, and processing Hawaii's data; it has reduced the lag time in data processing from about 2 ½ years to less than 3 months for most data. The biggest problems still facing HDAR in improving their data systems are reducing delinquency of fishermen reporting and implementing a validation system to ensure that what gets reported by fishermen is accurate. A Dealer Reporting System is being implemented to augment the Fisherman Reporting System to help address this issue and efforts are continuing to develop and implement other improvements to the Hawaii fisheries monitoring programs.

PRECAUTIONS

Data collecting and processing systems vary greatly among Pacific island fisheries agencies. Although much standardization has taken place and is continuing, there remain many unique aspects of each island's systems based on local needs and capabilities.

When using summaries contained in this report, especially if making comparisons, one should keep in mind the nature of the systems used to produce the data. For example, Hawaii's commercial landings data are based on mandatory monthly reporting by licensed commercial fishermen; CNMI's and Guam's data are based on voluntary reporting of major fish buyers using government-provided "trip-ticket" invoices and are adjusted to represent 100% coverage; American Samoa's data are based on a complex integration of data from a boat-based creel survey and data expansion system for a portion of the fisheries, mandatory logbooks and a size frequency sampling program for the longline fishery, and a mandatory trip ticket invoice reporting system for local sales. Each system has advantages and disadvantages, and the user should be aware of them when comparing or interpreting data. In addition, WPacFIN staff and the island agencies are continually making improvements to the data collecting and processing systems in each area. Because the improvements usually result in updates to the estimates of total and commercial landings, the data in this volume may not match exactly with data in previous volumes of this report series.

The user should also be aware that species assemblages vary among island

groups, as do cultural preferences and principal fishing techniques and gear. Population size is of particular importance when making interpretations of the relative value and importance of the fisheries. To help the user, explanations of the data collecting and processing systems are provided in each island's section of this report.

Please note that, starting with this volume, Guam and CNMI data are adjusted to 100% coverage and are referenced as "Estimated Commercial Landings."

CONTENTS

This document is divided into sections by island group. Each section contains reports on the monthly and annual landings by species or species groups for the commercial fleet.

Definitions

In addition to the description of the systems and the monthly and annual reports, each section contains graphs of some of the summary fishery statistics of particular interest or importance to participating WPacFIN agencies. To graphically present the data, several categories have been defined for each island's fisheries. Because of differences in reporting systems and capabilities among the islands, species contained within each category may vary, but all categories are documented in each island's section. Overlap exists among some of the categories used for different graphs. Categories used in the graphs include the following:

1. Fisheries Categories - These are combinations of species of similar ecological types, specifically pelagic, bottom fish, reef fish, and "other." "Other" includes groups that generally traverse these categories, such as certain sharks and jacks, or are not typically included in these groups, such as mullet and milkfish.
2. Pelagic Management Unit Species (PMUS) - The Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to place tunas under U.S. jurisdiction for management. The Fishery Management Plan for Pacific Pelagic Species was amended to reflect this change, and the acronym PPMUS was created to refer to a new group to include tunas. However, this report series will continue to treat the tunas as a separate category for graphical purposes and use the PMUS acronym. Therefore, the PMUS category in this document includes only the billfishes, wahoo, mahimahi, and oceanic sharks.

3. Bottom Fish Management Unit Species (BMUS) - Defined as the species of initial importance in the Fishery Management Plan for bottom fish and seamount fisheries, including the major deepwater snapper, grouper, emperor, and certain jacks.
4. Tunas – All the tuna species excluding wahoo. Historically this had been predominantly skipjack and yellowfin tunas in all areas, but with the growth of longline fisheries in Hawaii and American Samoa, bigeye and albacore tuna have become much more important or even predominant in recent years.
5. Other Tunas – The definition of this category has changed from earlier volumes of FSWP and varies among the islands depending on the importance of each tuna species in the total landings. For Guam and the CNMI it remains the same and includes all tunas as defined above except skipjack and yellowfin tunas. In Hawaii and Samoa it also excludes bigeye and albacore tuna so includes only tuna with relatively minor landings.
6. Billfish - Combination of all marlin, sailfish, spearfish, and swordfish species.

Graphics

Four types of graphs are provided with each island's data. Type I graphs present summary charts of the major species and species groups for 2000. Type II graphs are seasonality plots for the major species or species groups, showing the average weight landed during each month for all years combined. Type III graphs are time series plots of annual summary statistics to help visualize the variability among years. Type IV graphs are plots of monthly landings of some of the major commercially important species and document monthly fluctuations in landings of these species over the entire time series.

AMERICAN SAMOA 2000 FISHERY STATISTICS

Compiled by
American Samoa
Department of Marine and Wildlife Resources
and the
Western Pacific Fishery Information Network

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AMERICAN SAMOA 2000 FISHERY STATISTICS

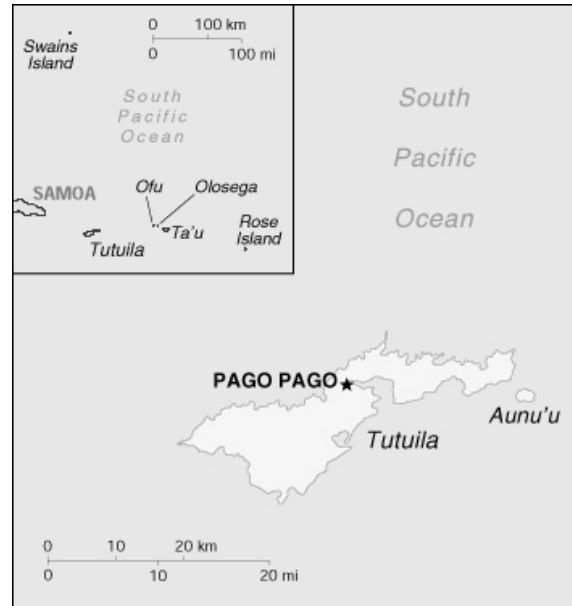
INTRODUCTION

Location: 14°S latitude, 170°W longitude

Islands: Tutuila, Aunu'u, the Manu'a Islands (Ofu, Olosega, Ta'u), Rose Atoll (uninhabited), and Swain's Island (sparsely populated)

Population: 64,000 (80% on Tutuila)

Economy: tuna industry



American Samoa

Source: <<http://www.cia.gov/cia/publications/factbook/aq.html>>;
The World Factbook 1999

The American Samoa Department of Marine and Wildlife Resources (DMWR; formerly the Office of Marine Resources) is located near Pago Pago on Tutuila and has been collecting commercial fisheries data from the Tutuila fleet since the early 1970s. In 1983 it extended its coverage to the Manu'a Islands, and in 1985 DMWR modified its data collection programs to include recreational and subsistence fisheries data.

American Samoa's domestic fisheries have typically been small-boat, one-day fisheries using primarily 28 to 32 foot long, outboard-engine-powered catamarans called *alias* (pronounced *ah-lee-ahs*). Traditionally, trolling and bottomfishing were the major methods of fishing, and a little spearfishing, netting, and vertical longlining were done occasionally. Beginning in about mid-1995 some of the traditional *alias* began converting to horizontal longlining. During 1996 horizontal longlining became the largest fishery in American Samoa based on total landed weight of the catch, even though only about one-third of the fleet had converted to this method. Over the next few years the fleet grew rapidly with the addition of new *alias* up to about 38 feet in length and, more significantly, with the addition of other larger mono-hull vessels that fished much longer trips. The primary target species is albacore tuna, but the fishery has also resulted in significant increases in landings of yellowfin tuna, wahoo, blue marlin, mahimahi and some other incidentally caught species.

During 2000, the various fishery monitoring programs in American Samoa identified 64 active vessels -- 54 home ported on Tutuila and 10 in the Manu'a islands. Many of these vessels participated in more than one fishery, and 45 of the Tutuila boats (including 5 vessels which were over 50 feet in length) did at least some longlining. Of the 64 total boats, 21 participated in the troll and bottomfish fisheries and 15 were used in other forms of fishing activities. On average, the *alia* fleet on Tutuila consisted of 4-man crews, fished 8 hours, and caught about 250 pounds of fish; the Manu'a-based fleet typically had 3-man crews, fished about 5 hours and landed 80 pounds of fish.

II.2

Essentially all of the longlining was based out of Tutuila, where the majority of the catch was offloaded to the canneries.

SPECIAL NOTE ON DATA REVISIONS

There were significant changes in the fisheries in the mid-1990's with the development of the longline fishery and a nighttime, boat-based SCUBA spearfishing fishery. Because of the nature of these fisheries, biases began creeping into the effort-counting and interviewing processes of the DMWR surveys. By 1997 WPacFIN staff discovered the problems, and modifications to survey techniques were implemented by DMWR staff. It became clear by early 1998 that the algorithms used to expand the survey data to estimates for the total fishery also needed to be changed. The new data processing system that better handles the more complex nature of today's fisheries in American Samoa as detailed below has been completed and was used to reprocess the historical time series. This volume includes the results of this new improved algorithm, but additional data quality control procedures and algorithm enhancements are still being made which may cause small changes in subsequent reports.

DATA COLLECTING SYSTEM

The data collecting systems used by DMWR to monitor the changing fisheries of American Samoa have evolved considerably over the past twenty years. One common factor of all systems has been that they have relied heavily on personal contacts with the fishermen and on a significant amount of dockside monitoring and interviewing.

The major data systems in use today include 1) boat-based access-point creel surveys on Tutuila and the Manu`a Islands (Offshore Creel Survey System), which are the mainstay of the monitoring program; 2) a mandatory purchase receipt "trip ticket" system for fish businesses on Tutuila (Commercial Purchase System); 3) a vessel history and tracking system for all American Samoa vessels (Vessel Classification System); 4) a Daily Effort Census System for detailed tracking of the developing longline fishery; 5) a mandatory federal Longline Logbook System; 6) a Cannery Landings System to document all landings at the two canneries made by domestic and foreign vessels; and 7) a size frequency sampling program at the canneries. Data from all these major systems are used to develop the best available data for the complex and ever changing fisheries of American Samoa. More details of these data collection systems follow.

From 1982 to 1985, DMWR obtained catch statistics by interviewing commercial fishermen at the end of their trips and kept records of as much commercial fishing activity as possible. This data collection method was accurate for trips where interviews were conducted. Yet it was very labor intensive, did not cover all trips, and did not include the subsistence fishery or the small but growing recreational fishery.

Also, beginning in the early 1980's, a vessel classification system was established to collect information on all vessels participating in any domestic fisheries. This system provides the following information on American Samoa vessels:

II.3

- Boat Name
- Registration Number
- Propulsion
- Length
- Beam
- Number of Engines
- Type of Use
- Trailered
- Number of Crew
- Depth
- Engine Type
- Fuel Type
- Material
- Horsepower
- Port
- Methods of fishing
- Federal Permit

In October 1985 a new creel survey sampling system was implemented on Tutuila to provide better coverage and statistics on all boat-based fisheries. Soon afterwards similar monitoring programs were established in the Manu'a Islands where the fishing fleets are centrally located and small enough for statistics to be collected for nearly every trip. The surveyors in the Manu'a islands send their monitoring forms to DMWR in Tutuila for processing, and the statistics are entered and compiled on a monthly basis and are adjusted by an estimated percent coverage factor that is frequently 100%.

The details of the Tutuila boat-based fishery sampling program have changed over the years to accommodate changes in the fisheries; but it is still a systematic, random sampling program that stratifies sampling by type of day (either weekday or weekend/holiday) and by fishing method. For logistical and cultural reasons, Sundays are no longer sampled as effort is extremely low and not similar to other weekend/holiday-type days.

DMWR staff normally sample 2 weekdays and 1 weekend/holiday per week. During survey days, counts of total participation are collected, and as many returning vessels as possible are interviewed for catch, effort, and biological samples. Tutuila is divided into six sample areas, five of which are sampled. It is assumed that the non-sampled area is similar to the sampled areas in fishing activity and success rate. Furthermore, it is assumed that the fishermen interviewed are representative of the entire fishing population and that they give accurate information.

Unless contrary information is available from dockside questioning of knowledgeable persons, a boat is assumed to be "out fishing" if its trailer is at a boat ramp or the boat is missing from its normal berthing area during the 18 hour survey day. The following participation information is recorded for all boats determined to be "out fishing." The participation data is expanded to estimate the total number of fishing trips in Tutuila.

- Sample Date
- Boat Name
- 3 Observation Times
- Type of Day
- Fishing Method
- Sample Area

II.4

The remaining data items listed below are collected on each boat for which an interview is successfully completed.

- Interview Time *
- Area fished
- Home island
- Total hours fished (trip length) *
- Number of fishermen
- Number of gear used
- Total trip weight in pounds *
- Species caught *
- Number of pieces for each species
- Disposition of species*
- Weight in pounds for each species *
- Condition of species if not whole
- Length of fish (converted to weight)
- Price per pound for each species

It is not always possible to obtain information on all the items listed. However, the ones marked with an asterisk (*) are considered essential for data expansion purposes. Also, identification and weight of each species are often not obtainable; in this case a code for species groupings (e.g., miscellaneous bottom fish) is used. The interview data is later expanded to estimate the total catch per fishing trips and other CPUE measures in Tutuila. The catch per trip estimate is multiplied by the number of trips estimate for each strata to get an estimate of the total catch for Tutuila.

For several decades the two canneries have provided monthly summary statistics about their purchases of fish from all vessels, foreign and domestic. Then in September 1990, a Commercial Purchase (receipt book) System was instituted in which all other businesses in Samoa that buy fish directly from fisherman were required by local law to submit a copy of their purchase receipts to DMWR. Receipt books are issued by DMWR to all fish markets, stores, hotels, and restaurants that re-sell fish, either whole or prepared. The following information is collected via these receipts.

- Invoice Date
- Invoice Number
- Buyer's Name
- Boat Name, Owner
- Area Fished
- Fishing Method
- Species bought
- Number of pieces for each species
- Weight in pounds for each species *
- Price per pound for each species

In January 1996, in response to the developing longline fishery, a federal longline logbook system was implemented by NMFS. All longline fishermen are required to obtain a federal permit which requires them to submit logs containing detailed data on each of their sets and the resulting catch. From 1996 to 1999, the logbooks submitted by the local longliners were edited by the NMFS fisheries monitoring agent in Samoa for any missing data and were then sent to the NMFS Honolulu Lab for further editing and data processing. To begin improving the monitoring of the fast-growing longline fishery, in July 1999 DMWR implemented a Daily Effort Consensus (DEC) for all federally permitted longline vessels. Six days a week DMWR staff make two visits a day to ports where longline vessels move. The staff document whether each vessel on the list is "in port" or "out fishing." The DEC data are used to track the activity of each vessel and to help ensure all fishing logsheets are submitted by the fishermen. To further improve the

II.5

quality and timeliness of the data, beginning in January 2000 logbook data collecting, editing, and processing has been done by DMWR in Samoa and is downloaded to NMFS periodically. The following information is recorded for each set these longline fishermen make:

- | | |
|----------------------------------|---|
| • Set Date | • Begin Set Time |
| • Vessel | • Begin Set Latitude and Longitude |
| • Date of Departure | • End Set Time |
| • Port of Departure | • End Set Latitude and Longitude |
| • Date of Arrival | • Haul Date |
| • Port of Arrival | • Begin Haul Date |
| • Observer on Board | • Begin Haul Latitude and Longitude |
| • Target Species | • End Haul Time |
| • Bait Used | • End Haul Latitude and Longitude |
| • Mainline Length | • No. of Pelagic Species kept |
| • No. of Hooks | • No. of Pelagic Species released |
| • No. of Hooks/Float | • No. of Sharks finned |
| • No. of Lightsticks Used | • No. of Sharks kept |
| • Bird Catch Mitigation Measures | • No. of Sharks released |
| • Wind Detection | • No. of Protected Species released alive |
| • Wave Height | • No. of Protected Species released injured |
| • Sea Surface Temperature | • No. of Protected Species released dead |
| • Wind Speed | |

DATA PROCESSING SYSTEM

As the data collecting systems used by DMWR to monitor the fisheries in American Samoa have changed over the years, so have the data processing systems. Numerous versions of database and utility software and microcomputer systems have been used over the years to meet the growing demand for processing the collected data. Generally speaking, these changes, with their significant emphasis on improving data quality and their cross-validation among systems, have made the data processing systems more robust, complex, and complete.

Several important principles have remained constant over time: keep data processing close to the source of data collecting; provide all of the needed software tools to ensure the quality of data; make the systems user friendly and functional for the local staff; and maintain as many standards as possible throughout the time series of data collected.

Typically, when upgrades (such as changes in expansion and reporting algorithms for the creel survey data and commercial landings data) have been made to data processing systems, the entire time series of data has been reprocessed using the same algorithms so that trends in the fisheries would remain as intact as possible. The

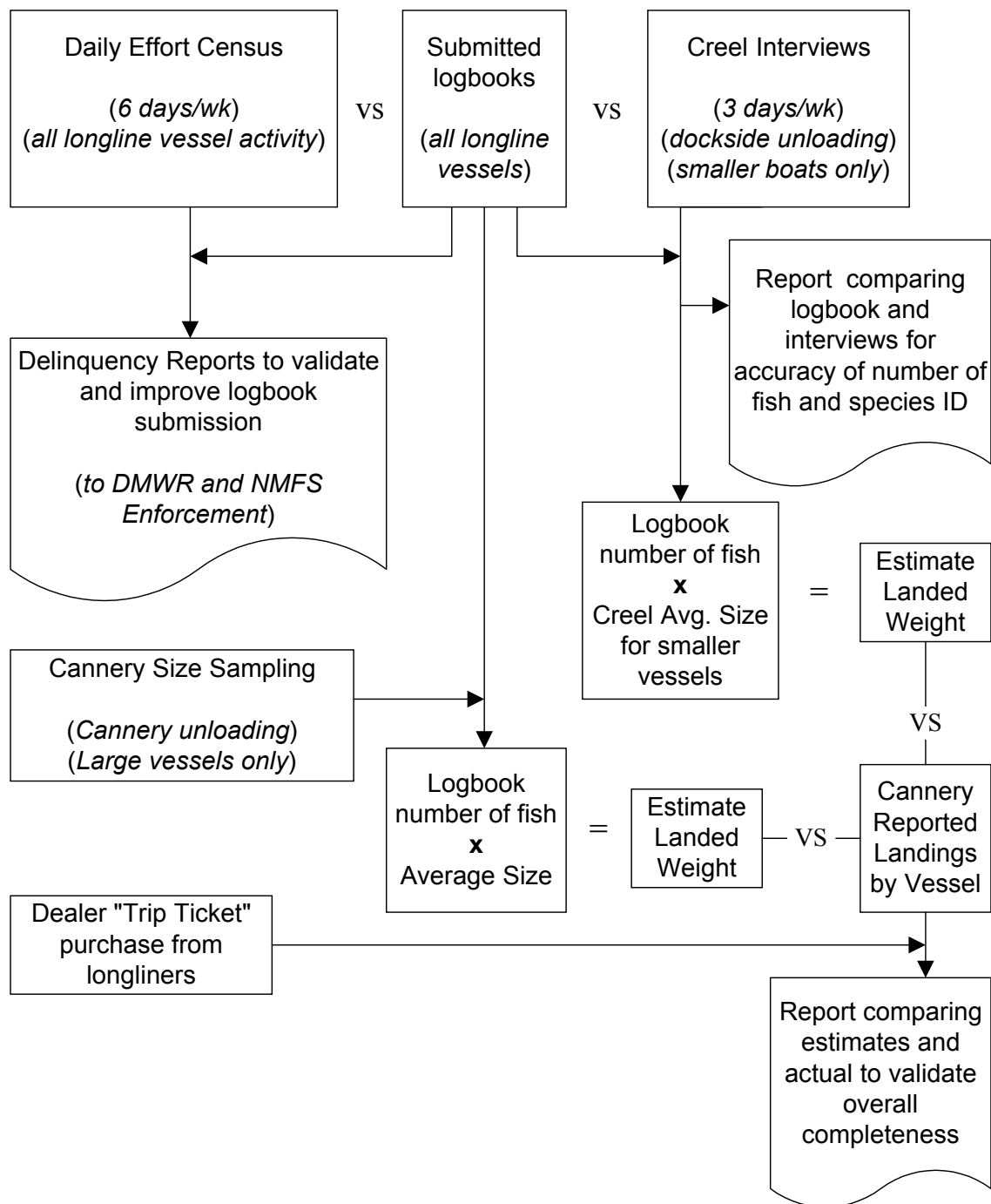
II.6

annual and monthly estimated commercial landings data and the corresponding time series figures included in this report were produced with the versions of data processing systems in use in August 2002. To help the reader understand the origin of the data included in this report, a general description of these processes follows. It does not include the details on many minor changes that have occurred throughout the evolutionary history of these systems.

The data from 1982-85 have been imported directly from the original Commercial Catch Monitoring System used before the implementation of the offshore creel survey. Since 1986, the boat-based creel survey data expansion system has been the central system for estimating total commercial landings in American Samoa. In short, the survey data expansion process involves multiplying the average daily participation by the average catch per trip for each stratum. For the years 1986-90, commercial sales portions of the expanded creel survey data from Tutuila and the Manu'a Islands were combined to produce estimated total commercial landings. Since 1990, with the implementation of the mandatory fish dealer receipt book system on Tutuila, further adjustments have been made to these combined creel data by using receipt book data. These adjustments made significant improvements in overall totals as they helped adjust for sales not monitored through the boat-based survey (e.g. shoreline and strictly nighttime commercial fishing). Species totals modified with these types of adjustments are flagged in reports with an asterisk. Finally, in the late 1990's when larger longline vessels began landing their catches directly at the canneries and thus were out of the monitoring capabilities of the standard creel surveys, the longline logbook system and cannery size frequency sampling data entered the algorithm to fill the gap for this portion of the fishery by adding the landings of these vessels to the other data. In total, they create a more complete picture of the estimated total commercial landings for the Territory.

One of the most significant recent improvements made in the data processing systems for DMWR has been in the area of cross-system data validation and quality control. By collecting similar data from several sources and using different monitoring and reporting tools, the quality of reported data can be cross-referenced between systems to provide insight into the validity and completeness of each data set. The following schematic shows some cross-system data validation relationships and features that are utilized in the most current version of the integrated DMWR fisheries monitoring programs (see next page):

Data Quality and Cross Validation American Samoa Longline Example



DATA REPORTING SYSTEM

After all editing, quality control, and data interpretation activities are completed, monthly and annual commercial landings data tables by species are generated. Each of the commercial landings data tables contains the common name, weight in pounds, value in dollars, and the average price per pound of each species or species group and whether or not the data was modified by Commercial Purchase System data (denoted by asterisks). The monthly data tables are based on monthly expansions of the Tutuila Offshore Creel Survey Data with enhancements by monthly Longline Logbook, Commercial Purchase System and Manu`a data as explained previously. Annual data tables are based on combined annual expansions of the creel data for the entire calendar year with similar annual enhancements from Longline Logbook, Commercial Purchase System and Manu`a data as explained previously. Since the monthly and annual data tables are based on separate monthly and annual expansion of the creel data, the annual data tables are not the exact sum of the 12 monthly data tables but fall within the standard error. These data tables are listed as Tables II.1.1 to II.1.13 in this report.

The charts that make up the rest of the report are for groups of species as well as for some of the dominant individual species. Please note that some of the charts in this volume are new or modified from earlier volumes including: II.1.4 (Albacore and Yellowfin); II.1.5 (Yellowfin replaced by Bigeye); II.2.4 (Albacore and Yellowfin); II.2.5 (Yellowfin replaced by Bigeye); II.3.5 (Albacore and Yellowfin); II.3.6 (Yellowfin replaced by Bigeye); II.4.5 (Albacore); and II.4.8 (Bigeye). More emphasis has been put on Bigeye Tuna and Albacore Tuna because of their new substantial levels of catch. The species in the species groups used in the charts of this report are defined below.

I. Pelagic Management Unit Species (PMUS)

Although the Magnuson Fishery Conservation and Management of 1976 was amended in 1992 to include tunas in the PMUS (PPMUS), this report series will continue to regard tunas as a separate category from the PPMUS. The PMUS category includes:

Other Sharks	Black marlin
Blacktip reef shark	Striped Marlin
Blue shark	Sailfish
Mako Shark	Spearfish
Nurse shark	Swordfish
Thresher Shark	Wahoo
White-Tip Shark	Pomfret
Mahimahi	Moonfish
Blue marlin	

II. Bottomfish Management Unit Species (BMUS)

Amberjack	Jacks (misc)
Ambon emperor	Kusakar's snapper
Bigeye emperor	Lehi (silverjaw)
Bigeye trevally	Longnose emperor
Black jack	Lunartail grouper
Black snapper	Multidens snapper
Blacktail snapper	Oilfish
Blacktip grouper	Onaga (longtail snapper)
Blood snapper	Onespot snapper
Blue lined gindai	Orangespot emperor
Blue lined snapper	Peacock grouper
Bluefin trevally	Pristipomoides/Etelis
Blueline bream	Redgill emperor
Bottom Handline Snappers	Rufous snapper
Bottomfish (Assorted)	Smalltooth grouper
Brown jobfish	Snake mackerel
Ehu (squirrelfish snap.)	Spotted grouper
Emperors (misc)	Stone's snapper
Flagtail grouper	Striped grouper
Giant grouper	Tomato grouper
Giant trevally	Trevally (C.caeruleop.)
Gindai (flower snap)	Twinspot/red snapper
Goldenline bream	Whitemouth trevally
Goldspot trevally	Yellow opakapaka
Gray jobfish	Yelloweye opakapaka(P.fl.
Groupers (misc)	Yellowspot grouper
Hawaiian opakapaka	Yellowtail snapper
Humpback snapper	

III. Billfish

Swordfish	Striped Marlin
Blue marlin	Sailfish
Black marlin	Spearfish

IV. Tunas

Tunas	Bluefin Tuna
Skipjack Tuna	Yellowfin Tuna
Dogtooth tuna	BigeyeTuna
Albacore	Kawakawa

V. Other Tuna

Tunas
Dogtooth tuna

Bluefin Tuna
Kawakawa

VI. Fisheries Categories

A. Pelagics

Albacore
Barracudas
BigeyeTuna
Black marlin
Blacktip reef shark
Blue marlin
Blue shark
Bluefin Tuna
Dogtooth tuna
Hammerhead Shark
Kawakawa
Large barracuda
Mackerel
Mahimahi
Mako Shark
Moonfish
Nurse shark
Other Pelagic Fish

Other Sharks
Other birds
Pomfret
Rainbow runner
Sailfish
Silky Shark
Skipjack Tuna
Small barracuda
Spearfish
Striped Marlin
Swordfish
Thresher Shark
Tiger Shark
Tunas
Wahoo
White-Tip Shark
Yellowfin Tuna

B. Bottom Fish

Amberjack	Jacks (misc)
Ambon emperor	Kusakar's snapper
Bigeye emperor	Lehi (silverjaw)
Bigeye trevally	Longnose emperor
Black jack	Lunartail grouper
Black snapper	Multidens snapper
Blacktail snapper	Oilfish
Blacktip grouper	Onaga (longtail snapper)
Blood snapper	Onespot snapper
Blue lined gindai	Orangespot emperor
Blue lined snapper	Peacock grouper
Bluefin trevally	Pristipomoides/Etelis
Blueline bream	Redgill emperor
Bottom Handline Snappers	Rufous snapper
Bottomfish (Assorted)	Smalltooth grouper
Brown jobfish	Snake mackerel
Ehu (squirrelfish snap.)	Spotted grouper
Emperors (misc)	Stone's snapper
Flagtail grouper	Striped grouper
Giant grouper	Tomato grouper
Giant trevally	Trevally (C.caeruleop.)
Gindai (flower snap)	Twinspot/red snapper
Goldenline bream	Whitemouth trevally
Goldspot trevally	Yellow opakapaka
Gray jobfish	Yelloweye opakapaka(P.fl.
Groupers (misc)	Yellowspot grouper
Hawaiian opakapaka	Yellowtail snapper
Humpback snapper	

C. Reef Fish

Bigeye scad	Moray eels
Catfish	Needlefish
Conger eels	Octopus
Crabs	Rays
Eagle ray	Salmon
Eels	Sea shells
Flyingfish	Sea urchins
Giant clam	Shrimp
Halfbeaks	Slipper lobster
Invertebrates	Spiny lobster
Kona crab	Spotted eels
Leatherback	Squid
Limu, algae	Sunfish
Mackerel scad: opelu	Threadfin
Mangrove crab	Tilapia
Milkfish	Turban snail
Miscellaneous	

D. Other

Bigeye squirrelfish	Porcupinefish
Bigeyes	Rabbitfish
Bigscale soldierfish	Red snapper, mu
Brown surgeonfish	Reef fish (Assorted)
Brwn wrasse:pataotao	Rudderfish
Butterflyfish	Saber squirrelfish
Cardinalfish	Sargent major
Convict tang	Squirrelfish
Flounders	Striped bristletooth
Goatfish	Surgeonfishes/tangs
Hawkfish	Sweepers
Inshore groupers	Sweetlips
Inshore snappers	Terapon perch
Lined surgeon	Tilefish
Mountain bass	Triggerfish
Mullets	Unicornfishes (misc)
Naso tang	Whitespotted surgeonfish
Orangespine unicornfish	Wrasse
Parrotfishes	Yellowfin surgeonfish
Pink goatfish	

INTERPRETATION OF STATISTICS

The user is reminded to pay heed to the precautions and assumptions identified earlier in this document when making interpretations of or inferences from data reported in the tables and graphs. Remember also that the commercial landings summaries are not based on a census of all the fishing activities, but on samples of those activities and on integration of data from four separate data systems. One of the major factors in expanding the creel survey data into monthly and annual estimates is the use of proportionality constants to adjust for percent coverage of the surveys. The flexibility of the survey design allows for refinement of these constants as additional information is gained on the fishing activities. If the constants are improved upon, the basic survey data can be re-expanded to create better overall estimates. However, the variability and species composition would not be expected to change since these statistics are based on the actual survey information collected from the fishermen. The estimates of total landings are considered to be conservative because the catch from the subsistence inshore fisheries are currently not included in this document.

Table II.1.1
American Samoa Annual 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Bigeye scad	631	\$1,262	\$2.00	
Jacks (misc)	2,176	\$3,356	\$1.54	
Black jack	272	\$544	\$2.00	
Barracudas	2,117	\$2,468	\$1.17	
Mullets	215	\$968	\$4.50	*
Other Sharks	296	\$148	\$0.50	
Blue shark	0	\$0	\$0.00	
Eels	375	\$750	\$2.00	
Groupers (misc)	295	\$590	\$2.00	
Flagtail grouper	46	\$108	\$2.35	
Tomato grouper	265	\$598	\$2.26	
Blacktip grouper	97	\$224	\$2.30	
Striped grouper	0	\$0	\$0.00	
Smalltooth grouper	7	\$18	\$2.50	
Giant grouper	53	\$131	\$2.47	
Lunartail grouper	632	\$1,310	\$2.08	
Blue lined snapper	4,876	\$10,356	\$2.12	
Rufous snapper	58	\$116	\$2.00	
Onespot snapper	9	\$18	\$2.00	
Humpback snapper	1,034	\$2,081	\$2.01	
Gray jobfish	3,913	\$7,878	\$2.01	
Yellow opakapaka	210	\$439	\$2.10	
Hawaiian opakapaka	350	\$700	\$2.00	*
Blue lined gindai	5	\$10	\$2.00	
Gindai (flower snap)	134	\$268	\$2.00	
Yellowtail snapper	60	\$121	\$2.00	
Lehi (silverjaw)	558	\$1,131	\$2.03	
Onaga (longtail snapper)	376	\$752	\$2.00	
Ehu (squirrelfish snap.)	1,712	\$5,129	\$3.00	*
Black snapper	157	\$313	\$2.00	
Stone's snapper	22	\$44	\$2.00	
Emperors (misc)	7,515	\$15,901	\$2.12	
Longnose emperor	374	\$748	\$2.00	
Orangespot emperor	813	\$1,626	\$2.00	
Oilfish	0	\$0	\$0.00	
Pomfret	0	\$0	\$0.00	
Rudderfish	94	\$188	\$2.00	
Rabbitfish	94	\$188	\$2.00	
Surgeonfishes/tangs	20,677	\$40,828	\$1.97	
Unicornfishes (misc)	1,905	\$3,640	\$1.91	
Squirrelfish	2,393	\$4,787	\$2.00	
Saber squirrelfish	34	\$78	\$2.28	
Bigeye squirrelfish	47	\$106	\$2.26	
Parrotfishes	12,978	\$25,810	\$1.99	*
Terapon perch	31	\$63	\$2.00	
Goatfish	10	\$25	\$2.50	
Inshore groupers	2,481	\$4,935	\$1.99	*
Triggerfish	20	\$50	\$2.50	
Porcupinefish	0	\$0	\$0.00	
Striped Marlin	0	\$0	\$0.00	
Mahimahi	31,241	\$46,068	\$1.47	
Swordfish	2,056	\$5,705	\$2.77	*
Blue marlin	34,258	\$40,456	\$1.18	

Table II.1.1 (Cont.)
American Samoa Annual 2000 Estimated Commercial Landings

Species	Pounds	Value	\$/Lb
Black marlin	0	\$0	\$0.00
Sailfish	1,390	\$1,390	\$1.00
Spearfish	0	\$0	\$0.00
Rainbow runner	1,396	\$2,753	\$1.97
Wahoo	43,243	\$50,643	\$1.17
Skipjack Tuna	31,381	\$38,606	\$1.23
Dogtooth tuna	184	\$251	\$1.36 *
Albacore	1,368,018	\$1,485,563	\$1.09
Yellowfin Tuna	179,582	\$168,598	\$0.94
BigeyeTuna	46,841	\$29,975	\$0.64
Kawakawa	39	\$40	\$1.03
Moonfish	1,803	\$1,803	\$1.00
Crabs	6	\$8	\$1.50
Spiny lobster	1,707	\$5,194	\$3.04
Octopus	65	\$178	\$2.74 *
TOTAL	1,813,624	\$2,018,031	\$1.11

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.2
American Samoa January 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Jacks (misc)	592	\$714	\$1.21
Black jack	88	\$176	\$2.00
Barracudas	179	\$209	\$1.16
Mullets	152	\$684	\$4.50 *
Other Sharks	0	\$0	\$0.00
Groupers (misc)	40	\$81	\$2.00
Flagtail grouper	27	\$63	\$2.33
Tomato grouper	70	\$155	\$2.21
Blacktip grouper	15	\$35	\$2.33
Lunartail grouper	129	\$278	\$2.15
Blue lined snapper	427	\$948	\$2.22
Rufous snapper	9	\$18	\$2.00
Humpback snapper	175	\$358	\$2.04
Gray jobfish	350	\$720	\$2.06
Yellow opakapaka	75	\$158	\$2.10
Gindai (flower snap)	35	\$70	\$2.00
Lehi (silverjaw)	75	\$145	\$1.94
Onaga (longtail snapper)	111	\$222	\$2.00
Ehu (squirrelfish snap.)	118	\$236	\$2.00
Stone's snapper	11	\$22	\$2.00
Emperors (misc)	359	\$784	\$2.19
Longnose emperor	13	\$26	\$2.00
Orangespot emperor	50	\$100	\$2.00
Reef fish (Assorted)	157	\$305	\$1.94 *
Surgeonfishes/tangs	3,308	\$6,582	\$1.99
Unicornfishes (misc)	120	\$240	\$1.99
Squirrelfish	598	\$1,219	\$2.04
Parrotfishes	1,310	\$2,579	\$1.97
Inshore groupers	316	\$619	\$1.96 *
Triggerfish	10	\$25	\$2.50
Mahimahi	1,875	\$2,749	\$1.47
Swordfish	82	\$213	\$2.59 *
Blue marlin	5,769	\$5,769	\$1.00
Black marlin	0	\$0	\$0.00
Rainbow runner	589	\$1,171	\$1.99
Wahoo	2,004	\$2,344	\$1.17
Skipjack Tuna	1,950	\$2,475	\$1.27
Dogtooth tuna	26	\$33	\$1.25
Albacore	55,140	\$58,944	\$1.07
Yellowfin Tuna	3,708	\$5,488	\$1.48
BigeyeTuna	3,388	\$2,735	\$0.81
Kawakawa	26	\$26	\$1.00
Moonfish	0	\$0	\$0.00
Spiny lobster	274	\$823	\$3.00
TOTAL	83,752	\$100,538	\$1.20

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.3
American Samoa February 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Jacks (misc)	83	\$174	\$2.09
Black jack	21	\$42	\$2.00
Barracudas	311	\$363	\$1.17
Mullets	63	\$284	\$4.50 *
Other Sharks	0	\$0	\$0.00
Blue shark	0	\$0	\$0.00
Groupers (misc)	31	\$63	\$2.00
Flagtail grouper	14	\$35	\$2.50
Tomato grouper	4	\$8	\$2.00
Smalltooth grouper	7	\$18	\$2.50
Giant grouper	30	\$75	\$2.50
Lunartail grouper	25	\$50	\$2.00
Blue lined snapper	323	\$693	\$2.14
Rufous snapper	5	\$10	\$2.00
Humpback snapper	31	\$61	\$1.97
Gray jobfish	180	\$360	\$2.00
Yellow opakapaka	11	\$21	\$2.00
Gindai (flower snap)	6	\$12	\$2.00
Lehi (silverjaw)	61	\$143	\$2.33
Onaga (longtail snapper)	115	\$230	\$2.00
Ehu (squirrelfish snap.)	501	\$1,651	\$3.30 *
Emperors (misc)	291	\$641	\$2.21
Longnose emperor	10	\$20	\$2.00
Orangespot emperor	39	\$78	\$2.00
Reef fish (Assorted)	186	\$351	\$1.89 *
Rudderfish	53	\$105	\$2.00
Surgeonfishes/tangs	2,893	\$5,562	\$1.92
Unicornfishes (misc)	103	\$158	\$1.53 *
Squirrelfish	189	\$392	\$2.08
Parrotfishes	2,077	\$4,009	\$1.93
Inshore groupers	310	\$600	\$1.94 *
Mahimahi	1,411	\$2,160	\$1.53
Swordfish	157	\$526	\$3.35 *
Blue marlin	4,167	\$5,513	\$1.32
Black marlin	0	\$0	\$0.00
Sailfish	85	\$85	\$1.00 *
Rainbow runner	79	\$115	\$1.46
Wahoo	5,668	\$6,854	\$1.21
Skipjack Tuna	3,932	\$5,198	\$1.32
Dogtooth tuna	29	\$49	\$1.69
Albacore	64,219	\$70,032	\$1.09
Yellowfin Tuna	6,981	\$8,087	\$1.16
Bigeye Tuna	8,316	\$5,087	\$0.61
Moonfish	0	\$0	\$0.00
Spiny lobster	193	\$578	\$3.00
TOTAL	103,207	\$120,487	\$1.17

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.4
American Samoa March 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Bigeye scad	80	\$175	\$2.19	*
Jacks (misc)	82	\$165	\$2.00	
Black jack	66	\$132	\$2.00	
Barracudas	101	\$141	\$1.40	
Other Sharks	0	\$0	\$0.00	
Blue shark	0	\$0	\$0.00	
Eels	157	\$314	\$2.00	
Groupers (misc)	159	\$318	\$2.00	
Flagtail grouper	5	\$10	\$2.00	
Tomato grouper	21	\$42	\$2.00	
Lunartail grouper	120	\$241	\$2.00	
Blue lined snapper	867	\$1,734	\$2.00	
Rufous snapper	10	\$20	\$2.00	
Onespot snapper	4	\$8	\$2.00	
Humpback snapper	161	\$317	\$1.96	
Gray jobfish	937	\$1,874	\$2.00	
Yellow opakapaka	31	\$61	\$2.00	
Hawaiian opakapaka	7	\$14	\$2.00	
Blue lined gindai	3	\$6	\$2.00	
Gindai (flower snap)	27	\$54	\$2.00	
Yellowtail snapper	2	\$4	\$2.00	
Lehi (silverjaw)	115	\$230	\$2.00	
Onaga (longtail snapper)	87	\$174	\$2.00	
Ehu (squirrelfish snap.)	113	\$226	\$2.00	
Stone's snapper	7	\$14	\$2.00	
Emperors (misc)	1,429	\$3,075	\$2.15	
Longnose emperor	51	\$102	\$2.00	
Orangespot emperor	197	\$394	\$2.00	
Reef fish (Assorted)	122	\$244	\$2.00	
Surgeonfishes/tangs	2,935	\$5,870	\$2.00	
Unicornfishes (misc)	554	\$1,108	\$2.00	
Squirrelfish	343	\$686	\$2.00	
Parrotfishes	1,269	\$2,538	\$2.00	
Inshore groupers	222	\$445	\$2.00	
Mahimahi	1,502	\$2,399	\$1.60	
Swordfish	32	\$112	\$3.50	*
Blue marlin	3,687	\$3,780	\$1.03	
Wahoo	3,384	\$4,009	\$1.18	
Skipjack Tuna	2,811	\$2,934	\$1.04	
Dogtooth tuna	9	\$10	\$1.10	
Albacore	59,808	\$59,264	\$0.99	
Yellowfin Tuna	27,671	\$20,029	\$0.72	
BigeyeTuna	7,007	\$3,870	\$0.55	
Moonfish	0	\$0	\$0.00	
Spiny lobster	157	\$550	\$3.50	
TOTAL	116,353	\$117,692	\$1.01	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.5
American Samoa April 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Bigeye scad	100	\$175	\$1.75	*
Jacks (misc)	88	\$201	\$2.28	
Black jack	11	\$22	\$2.00	
Barracudas	174	\$267	\$1.54	
Other Sharks	0	\$0	\$0.00	
Blue shark	0	\$0	\$0.00	
Eels	152	\$304	\$2.00	
Groupers (misc)	79	\$158	\$2.00	
Tomato grouper	3	\$6	\$2.00	
Blacktip grouper	2	\$4	\$2.00	
Lunartail grouper	50	\$99	\$2.00	
Blue lined snapper	541	\$1,142	\$2.11	
Humpback snapper	77	\$151	\$1.96	
Gray jobfish	493	\$999	\$2.03	
Yellow opakapaka	8	\$17	\$2.00	
Hawaiian opakapaka	40	\$80	\$2.00	*
Blue lined gindai	2	\$4	\$2.00	
Gindai (flower snap)	3	\$6	\$2.00	
Lehi (silverjaw)	54	\$108	\$2.00	
Onaga (longtail snapper)	0	\$0	\$0.00	
Ehu (squirrelfish snap.)	0	\$0	\$0.00	
Emperors (misc)	826	\$1,790	\$2.17	
Longnose emperor	25	\$51	\$2.00	
Orangespot emperor	98	\$196	\$2.00	
Pomfret	0	\$0	\$0.00	
Reef fish (Assorted)	194	\$388	\$2.00	
Surgeonfishes/tangs	3,344	\$6,682	\$2.00	
Unicornfishes (misc)	536	\$1,071	\$2.00	
Squirrelfish	263	\$526	\$2.00	
Parrotfishes	1,548	\$3,094	\$2.00	
Inshore groupers	240	\$481	\$2.00	
Striped Marlin	0	\$0	\$0.00	
Mahimahi	447	\$768	\$1.72	
Swordfish	0	\$0	\$0.00	
Blue marlin	3,072	\$3,275	\$1.07	
Black marlin	0	\$0	\$0.00	
Wahoo	1,095	\$977	\$0.89	
Skipjack Tuna	4,153	\$6,058	\$1.46	
Dogtooth tuna	16	\$19	\$1.17	
Albacore	35,533	\$37,997	\$1.07	
Yellowfin Tuna	56,406	\$54,998	\$0.98	
BigeyeTuna	1,832	\$788	\$0.43	
Kawakawa	9	\$9	\$1.00	
Spiny lobster	190	\$659	\$3.47	
TOTAL	111,704	\$123,568	\$1.11	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.6
American Samoa May 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Jacks (misc)	88	\$175	\$2.00
Barracudas	122	\$152	\$1.25
Other Sharks	0	\$0	\$0.00
Blue shark	0	\$0	\$0.00
Eels	101	\$201	\$2.00
Flagtail grouper	0	\$0	\$0.00
Lunartail grouper	18	\$35	\$2.00
Blue lined snapper	366	\$733	\$2.00
Humpback snapper	315	\$630	\$2.00 *
Gray jobfish	114	\$229	\$2.00
Black snapper	25	\$49	\$2.00
Emperors (misc)	460	\$937	\$2.04
Longnose emperor	44	\$88	\$2.00
Orangespot emperor	70	\$140	\$2.00
Pomfret	0	\$0	\$0.00
Surgeonfishes/tangs	1,882	\$3,764	\$2.00
Unicornfishes (misc)	355	\$710	\$2.00
Squirrelfish	151	\$301	\$2.00
Parrotfishes	953	\$1,906	\$2.00 *
Inshore groupers	172	\$344	\$2.00
Striped Marlin	0	\$0	\$0.00
Mahimahi	1,716	\$2,702	\$1.57
Swordfish	0	\$0	\$0.00
Blue marlin	5,702	\$8,553	\$1.50
Black marlin	0	\$0	\$0.00
Sailfish	156	\$156	\$1.00
Spearfish	0	\$0	\$0.00
Wahoo	2,590	\$2,806	\$1.08
Skipjack Tuna	2,820	\$3,785	\$1.34
Albacore	91,156	\$94,131	\$1.03
Yellowfin Tuna	47,587	\$37,981	\$0.80
Bigeye Tuna	5,802	\$2,495	\$0.43
Moonfish	0	\$0	\$0.00
Spiny lobster	101	\$352	\$3.50
Octopus	3	\$10	\$3.00 *
TOTAL	162,867	\$163,364	\$1.00

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.7
American Samoa June 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Jacks (misc)	69	\$138	\$2.00	
Black jack	10	\$20	\$2.00	
Barracudas	104	\$111	\$1.06	
Other Sharks	0	\$0	\$0.00	
Blue shark	0	\$0	\$0.00	
Flagtail grouper	0	\$0	\$0.00	
Tomato grouper	56	\$137	\$2.45	
Blacktip grouper	35	\$88	\$2.50	
Giant grouper	23	\$56	\$2.43	
Lunartail grouper	98	\$223	\$2.28	
Blue lined snapper	349	\$802	\$2.30	
Rufous snapper	9	\$18	\$2.00	
Humpback snapper	74	\$163	\$2.20	
Gray jobfish	70	\$140	\$2.00	
Hawaiian opakapaka	7	\$14	\$2.00	
Gindai (flower snap)	8	\$16	\$2.00	
Lehi (silverjaw)	4	\$8	\$2.00	
Onaga (longtail snapper)	22	\$44	\$2.00	
Ehu (squirrelfish snap.)	65	\$130	\$2.00	
Black snapper	19	\$39	\$2.00	
Emperors (misc)	304	\$622	\$2.05	
Longnose emperor	34	\$69	\$2.00	
Orangespot emperor	55	\$110	\$2.00	
Pomfret	0	\$0	\$0.00	
Surgeonfishes/tangs	1,824	\$3,670	\$2.01	*
Unicornfishes (misc)	170	\$328	\$1.93	*
Squirrelfish	187	\$381	\$2.04	*
Parrotfishes	893	\$1,784	\$2.00	*
Terapon perch	10	\$19	\$2.00	
Goatfish	10	\$25	\$2.50	
Inshore groupers	163	\$330	\$2.03	*
Triggerfish	10	\$25	\$2.50	
Mahimahi	1,389	\$1,823	\$1.31	
Swordfish	536	\$1,608	\$3.00	*
Blue marlin	1,026	\$1,282	\$1.25	
Black marlin	0	\$0	\$0.00	
Sailfish	69	\$69	\$1.00	
Rainbow runner	40	\$100	\$2.50	
Wahoo	3,400	\$4,899	\$1.44	
Skipjack Tuna	2,680	\$3,143	\$1.17	
Albacore	136,359	\$182,747	\$1.34	
Yellowfin Tuna	7,236	\$6,598	\$0.91	
Bigeye Tuna	4,526	\$3,203	\$0.71	
Kawakawa	0	\$0	\$0.00	
Moonfish	529	\$529	\$1.00	
Spiny lobster	200	\$400	\$2.00	
Octopus	37	\$115	\$3.13	*
TOTAL	162,706	\$216,025	\$1.33	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.8
American Samoa July 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Jacks (misc)	146	\$233	\$1.60
Black jack	18	\$36	\$2.00
Barracudas	291	\$310	\$1.07
Eels	20	\$41	\$2.00
Groupers (misc)	22	\$44	\$2.00
Flagtail grouper	0	\$0	\$0.00
Tomato grouper	12	\$24	\$2.00
Blacktip grouper	3	\$6	\$2.00
Lunartail grouper	64	\$129	\$2.00
Blue lined snapper	243	\$487	\$2.00
Onespot snapper	5	\$10	\$2.00
Humpback snapper	95	\$189	\$1.99
Gray jobfish	207	\$413	\$2.00
Hawaiian opakapaka	64	\$128	\$2.00 *
Gindai (flower snap)	16	\$32	\$2.00
Yellowtail snapper	73	\$145	\$2.00
Lehi (silverjaw)	85	\$170	\$2.00
Ehu (squirrelfish snap.)	134	\$402	\$3.00 *
Black snapper	24	\$48	\$2.00
Emperors (misc)	562	\$1,127	\$2.01
Longnose emperor	49	\$99	\$2.00
Orangespot emperor	95	\$190	\$2.00
Reef fish (Assorted)	35	\$62	\$1.77 *
Rudderfish	5	\$10	\$2.00
Rabbitfish	5	\$10	\$2.00
Surgeonfishes/tangs	1,253	\$2,478	\$1.98
Unicornfishes (misc)	129	\$252	\$1.95
Squirrelfish	125	\$249	\$1.98
Parrotfishes	659	\$1,299	\$1.97
Terapon perch	2	\$3	\$1.99
Inshore groupers	252	\$504	\$2.00 *
Striped Marlin	0	\$0	\$0.00
Mahimahi	2,789	\$4,474	\$1.60
Blue marlin	3,434	\$4,061	\$1.18
Black marlin	0	\$0	\$0.00
Spearfish	0	\$0	\$0.00
Rainbow runner	68	\$137	\$2.00
Wahoo	2,726	\$3,212	\$1.18
Skipjack Tuna	2,051	\$2,065	\$1.01
Albacore	115,404	\$120,914	\$1.05
Yellowfin Tuna	8,284	\$5,998	\$0.72
BigeyeTuna	1,466	\$630	\$0.43
Moonfish	0	\$0	\$0.00
Spiny lobster	92	\$297	\$3.23
Octopus	19	\$37	\$2.00 *
TOTAL	141,025	\$150,954	\$1.07

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.9

American Samoa August 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Jacks (misc)	73	\$146	\$2.00
Black jack	10	\$20	\$2.00
Barracudas	425	\$442	\$1.04
Other Sharks	204	\$102	\$0.50
Eels	0	\$0	\$0.00
Groupers (misc)	0	\$0	\$0.00
Flagtail grouper	0	\$0	\$0.00
Tomato grouper	4	\$8	\$2.00
Blacktip grouper	3	\$6	\$2.00
Striped grouper	0	\$0	\$0.00
Lunartail grouper	40	\$81	\$2.00
Blue lined snapper	261	\$522	\$2.00 *
Humpback snapper	193	\$354	\$1.83 *
Gray jobfish	306	\$611	\$2.00
Yellow opakapaka	4	\$8	\$2.00
Hawaiian opakapaka	116	\$232	\$2.00 *
Gindai (flower snap)	3	\$6	\$2.00
Lehi (silverjaw)	37	\$73	\$2.00
Onaga (longtail snapper)	111	\$272	\$2.45 *
Ehu (squirrelfish snap.)	207	\$608	\$2.94 *
Black snapper	14	\$28	\$2.00
Emperors (misc)	584	\$1,226	\$2.10
Longnose emperor	25	\$49	\$2.00
Orangespot emperor	39	\$79	\$2.00
Pomfret	0	\$0	\$0.00
Rabbitfish	41	\$83	\$2.00
Surgeonfishes/tangs	1,737	\$3,469	\$2.00 *
Unicornfishes (misc)	318	\$508	\$1.60 *
Squirrelfish	453	\$905	\$2.00 *
Parrotfishes	2,149	\$4,296	\$2.00 *
Terapon perch	14	\$28	\$2.00
Inshore groupers	408	\$817	\$2.00 *
Triggerfish	0	\$0	\$0.00
Striped Marlin	0	\$0	\$0.00
Mahimahi	6,212	\$8,984	\$1.45
Swordfish	0	\$0	\$0.00
Blue marlin	2,387	\$2,795	\$1.17
Black marlin	0	\$0	\$0.00
Sailfish	649	\$649	\$1.00
Spearfish	0	\$0	\$0.00
Rainbow runner	10	\$10	\$1.00
Wahoo	3,964	\$5,117	\$1.29
Skipjack Tuna	3,610	\$4,359	\$1.21
Dogtooth tuna	30	\$33	\$1.10
Albacore	134,718	\$145,600	\$1.08
Yellowfin Tuna	20,010	\$25,619	\$1.28
BigeyeTuna	1,038	\$446	\$0.43
Kawakawa	4	\$5	\$1.25
Moonfish	562	\$562	\$1.00
Spiny lobster	150	\$552	\$3.69 *
Octopus	6	\$16	\$2.53 *
TOTAL	181,129	\$209,726	\$1.16

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.10
American Samoa September 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Jacks (misc)	25	\$63	\$2.50	
Barracudas	29	\$34	\$1.16	
Groupers (misc)	9	\$19	\$2.00	
Lunartail grouper	7	\$14	\$2.00	
Blue lined snapper	282	\$564	\$2.00	*
Humpback snapper	91	\$182	\$2.00	*
Gray jobfish	19	\$38	\$2.00	*
Yellow opakapaka	25	\$63	\$2.50	
Hawaiian opakapaka	72	\$144	\$2.00	*
Yellowtail snapper	6	\$13	\$2.00	
Lehi (silverjaw)	7	\$14	\$2.00	
Onaga (longtail snapper)	23	\$46	\$2.00	*
Ehu (squirrelfish snap.)	228	\$598	\$2.62	*
Emperors (misc)	62	\$147	\$2.36	
Longnose emperor	3	\$6	\$2.00	
Orangespot emperor	12	\$23	\$2.00	
Surgeonfishes/tangs	1,417	\$2,834	\$2.00	*
Unicornfishes (misc)	119	\$189	\$1.58	*
Squirrelfish	173	\$346	\$2.00	*
Parrotfishes	1,242	\$2,484	\$2.00	*
Inshore groupers	222	\$444	\$2.00	*
Striped Marlin	0	\$0	\$0.00	
Mahimahi	6,368	\$9,210	\$1.45	
Blue marlin	1,033	\$1,550	\$1.50	
Black marlin	0	\$0	\$0.00	
Rainbow runner	0	\$0	\$0.00	
Wahoo	2,502	\$2,980	\$1.19	
Skipjack Tuna	1,211	\$1,389	\$1.15	
Dogtooth tuna	101	\$126	\$1.25	*
Albacore	96,458	\$100,389	\$1.04	
Yellowfin Tuna	5,944	\$8,328	\$1.40	
BigeyeTuna	2,648	\$2,885	\$1.09	
Moonfish	0	\$0	\$0.00	
Spiny lobster	68	\$240	\$3.54	*
TOTAL	120,408	\$135,361	\$1.12	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.11
American Samoa October 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Jacks (misc)	96	\$136	\$1.42
Barracudas	0	\$0	\$0.00
Eels	24	\$47	\$2.00
Groupers (misc)	0	\$0	\$0.00
Tomato grouper	56	\$140	\$2.50
Blacktip grouper	14	\$35	\$2.50
Lunartail grouper	4	\$8	\$2.00
Blue lined snapper	200	\$500	\$2.50
Humpback snapper	33	\$66	\$2.00 *
Gray jobfish	20	\$50	\$2.50
Hawaiian opakapaka	23	\$46	\$2.00 *
Lehi (silverjaw)	0	\$0	\$0.00
Onaga (longtail snapper)	9	\$18	\$2.00 *
Ehu (squirrelfish snap.)	335	\$849	\$2.53 *
Emperors (misc)	66	\$156	\$2.36
Rudderfish	6	\$12	\$2.00
Rabbitfish	6	\$12	\$2.00
Surgeonfishes/tangs	1,668	\$3,320	\$1.99 *
Unicornfishes (misc)	116	\$223	\$1.93
Squirrelfish	170	\$341	\$2.00 *
Parrotfishes	1,201	\$2,403	\$2.00 *
Terapon perch	2	\$4	\$2.00
Inshore groupers	183	\$366	\$2.00 *
Triggerfish	0	\$0	\$0.00
Mahimahi	2,603	\$3,885	\$1.49
Blue marlin	1,963	\$1,963	\$1.00
Sailfish	208	\$208	\$1.00
Rainbow runner	79	\$159	\$2.00
Wahoo	3,306	\$3,406	\$1.03
Skipjack Tuna	1,820	\$2,909	\$1.60
Dogtooth tuna	83	\$125	\$1.50 *
Albacore	150,208	\$142,646	\$0.95
Yellowfin Tuna	3,029	\$2,496	\$0.82
Bigeye Tuna	3,572	\$2,162	\$0.61
Spiny lobster	94	\$352	\$3.73 *
TOTAL	171,198	\$169,042	\$0.99

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.12
American Samoa November 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Jacks (misc)	0	\$0	\$0.00	
Barracudas	129	\$153	\$1.19	
Groupers (misc)	13	\$25	\$2.00	
Tomato grouper	9	\$18	\$2.00	
Lunartail grouper	16	\$33	\$2.00	
Blue lined snapper	266	\$648	\$2.43	
Rufous snapper	6	\$12	\$2.00	
Humpback snapper	37	\$74	\$2.00	*
Gray jobfish	42	\$94	\$2.24	
Yellow opakapaka	7	\$14	\$2.00	
Hawaiian opakapaka	35	\$70	\$2.00	*
Gindai (flower snap)	10	\$20	\$2.00	
Yellowtail snapper	9	\$17	\$2.00	
Lehi (silverjaw)	13	\$27	\$2.00	
Onaga (longtail snapper)	8	\$16	\$2.00	*
Ehu (squirrelfish snap.)	18	\$36	\$2.00	*
Stone's snapper	4	\$8	\$2.00	
Emperors (misc)	73	\$172	\$2.34	
Longnose emperor	4	\$8	\$2.00	
Orangespot emperor	16	\$31	\$2.00	
Oilfish	0	\$0	\$0.00	
Pomfret	0	\$0	\$0.00	
Surgeonfishes/tangs	940	\$1,879	\$2.00	*
Unicornfishes (misc)	52	\$70	\$1.35	*
Squirrelfish	117	\$234	\$2.00	*
Parrotfishes	936	\$1,872	\$2.00	*
Inshore groupers	90	\$179	\$2.00	*
Triggerfish	0	\$0	\$0.00	
Mahimahi	917	\$1,500	\$1.64	*
Swordfish	942	\$2,481	\$2.63	*
Blue marlin	506	\$573	\$1.13	*
Black marlin	0	\$0	\$0.00	
Wahoo	5,478	\$5,823	\$1.06	
Skipjack Tuna	3,450	\$4,251	\$1.23	
Dogtooth tuna	16	\$20	\$1.25	
Albacore	239,966	\$259,664	\$1.08	
Yellowfin Tuna	3,805	\$3,059	\$0.80	
BigeyeTuna	1,710	\$735	\$0.43	
Moonfish	0	\$0	\$0.00	
Spiny lobster	31	\$96	\$3.10	*
TOTAL	259,669	\$283,911	\$1.09	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.13

American Samoa December 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Bigeye scad	631	\$1,262	\$2.00
Jacks (misc)	60	\$62	\$1.04
Black jack	48	\$96	\$2.00
Barracudas	75	\$89	\$1.19
Other Sharks	0	\$0	\$0.00
Eels	20	\$40	\$2.00
Groupers (misc)	0	\$0	\$0.00
Tomato grouper	30	\$60	\$2.00
Blacktip grouper	25	\$50	\$2.00
Lunartail grouper	42	\$85	\$2.00
Blue lined snapper	76	\$152	\$2.00 *
Rufous snapper	19	\$38	\$2.00
Humpback snapper	33	\$66	\$1.99
Gray jobfish	25	\$50	\$2.00 *
Yellow opakapaka	33	\$66	\$2.00
Hawaiian opakapaka	12	\$24	\$2.00
Gindai (flower snap)	26	\$52	\$2.00
Lehi (silverjaw)	3	\$6	\$2.00
Onaga (longtail snapper)	41	\$82	\$2.00
Ehu (squirrelfish snap.)	140	\$498	\$3.56 *
Emperors (misc)	48	\$100	\$2.07
Pomfret	0	\$0	\$0.00
Rudderfish	5	\$10	\$2.00
Rabbitfish	5	\$10	\$2.00
Surgeonfishes/tangs	1,088	\$2,149	\$1.98
Unicornfishes (misc)	98	\$189	\$1.93
Squirrelfish	98	\$196	\$2.00 *
Parrotfishes	797	\$1,594	\$2.00 *
Terapon perch	2	\$3	\$1.99
Inshore groupers	91	\$180	\$1.97
Triggerfish	0	\$0	\$0.00
Mahimahi	419	\$643	\$1.53 *
Swordfish	307	\$765	\$2.49 *
Blue marlin	405	\$405	\$1.00 *
Black marlin	0	\$0	\$0.00
Rainbow runner	67	\$134	\$2.00
Wahoo	6,117	\$6,001	\$0.98
Skipjack Tuna	2,193	\$2,369	\$1.08
Dogtooth tuna	18	\$23	\$1.25
Albacore	162,485	\$164,723	\$1.01
Yellowfin Tuna	5,438	\$5,722	\$1.05
BigeyeTuna	6,182	\$4,513	\$0.73
Moonfish	0	\$0	\$0.00
Spiny lobster	78	\$249	\$3.18
TOTAL	187,280	\$192,756	\$1.03

* Data replaced or modified by Actual Commercial Landings Data

Figure II.1.1

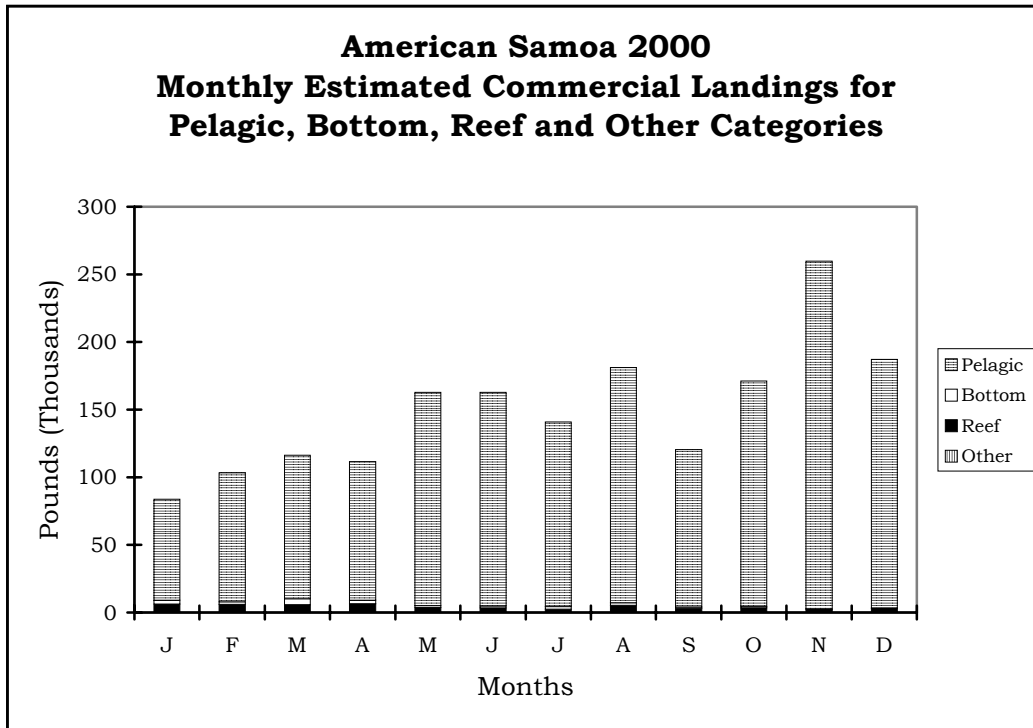


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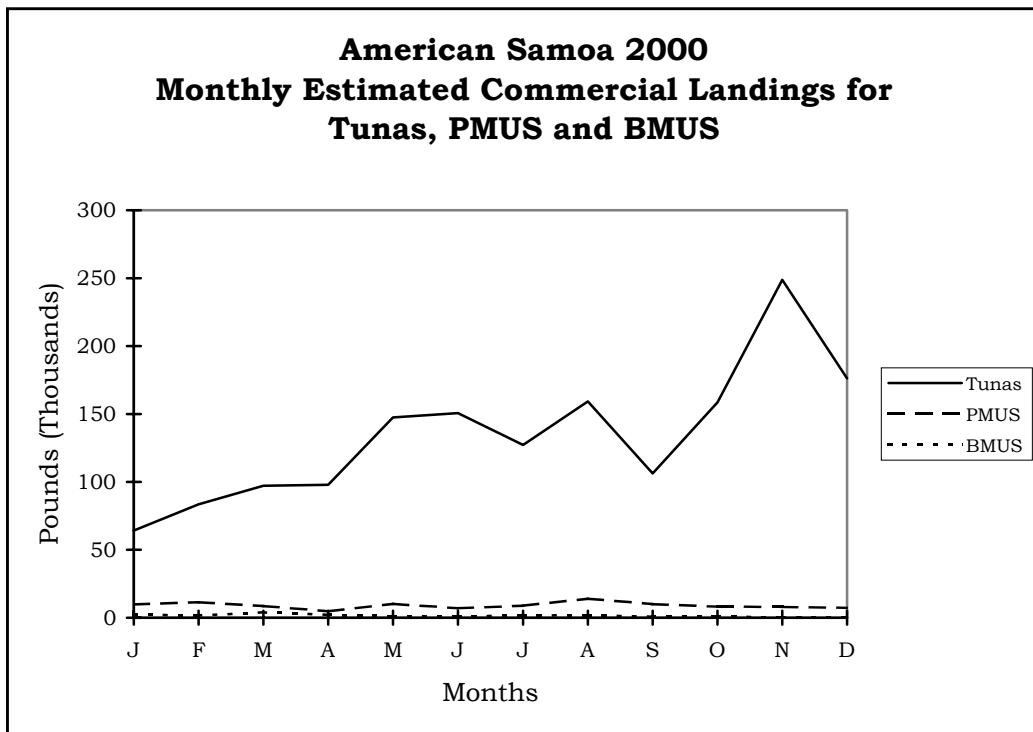


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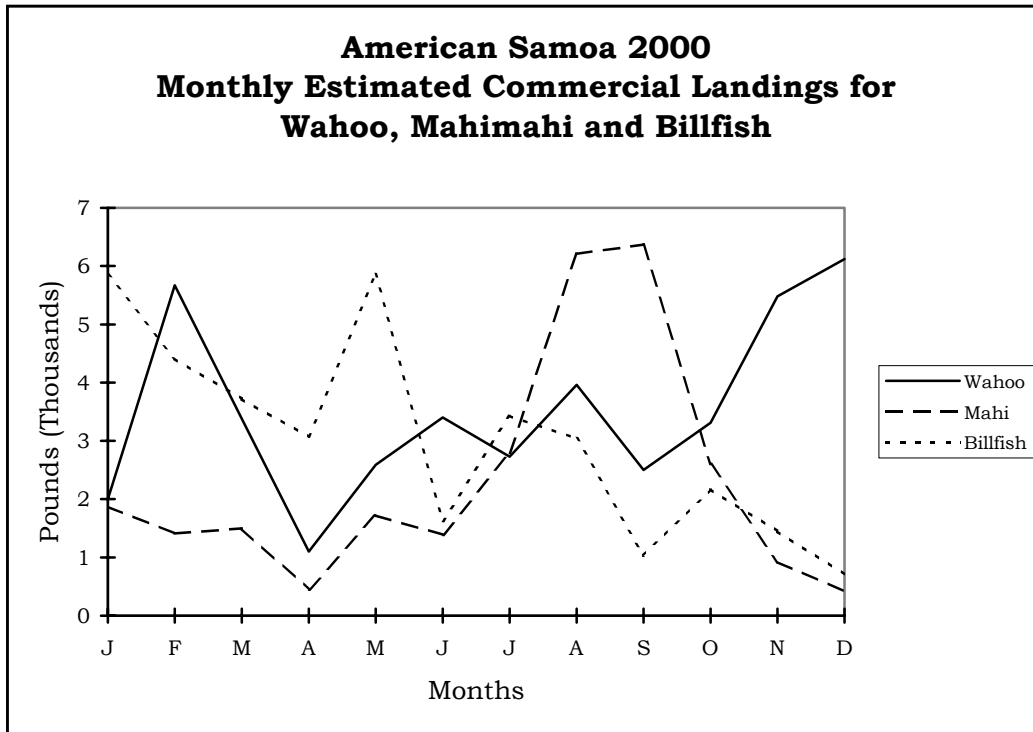


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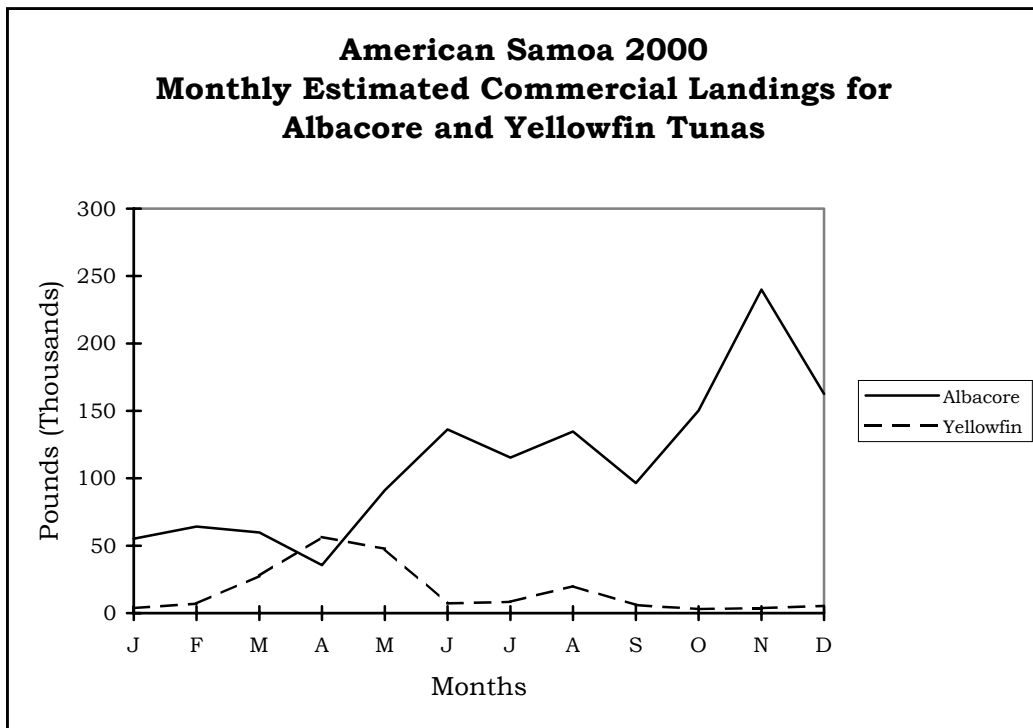


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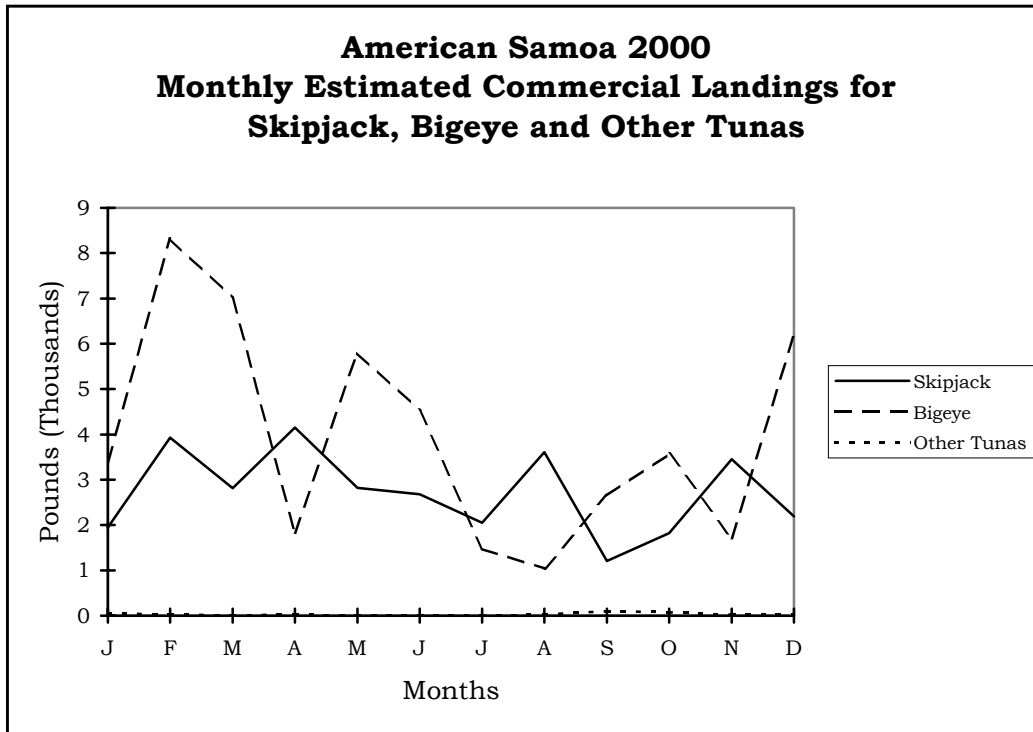


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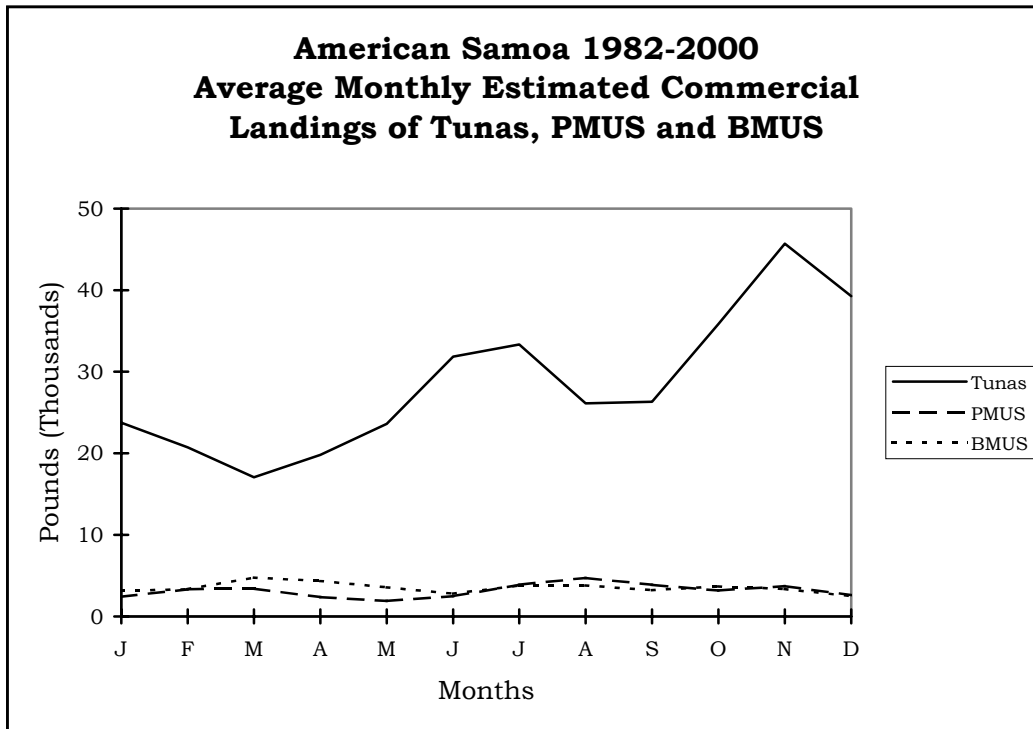


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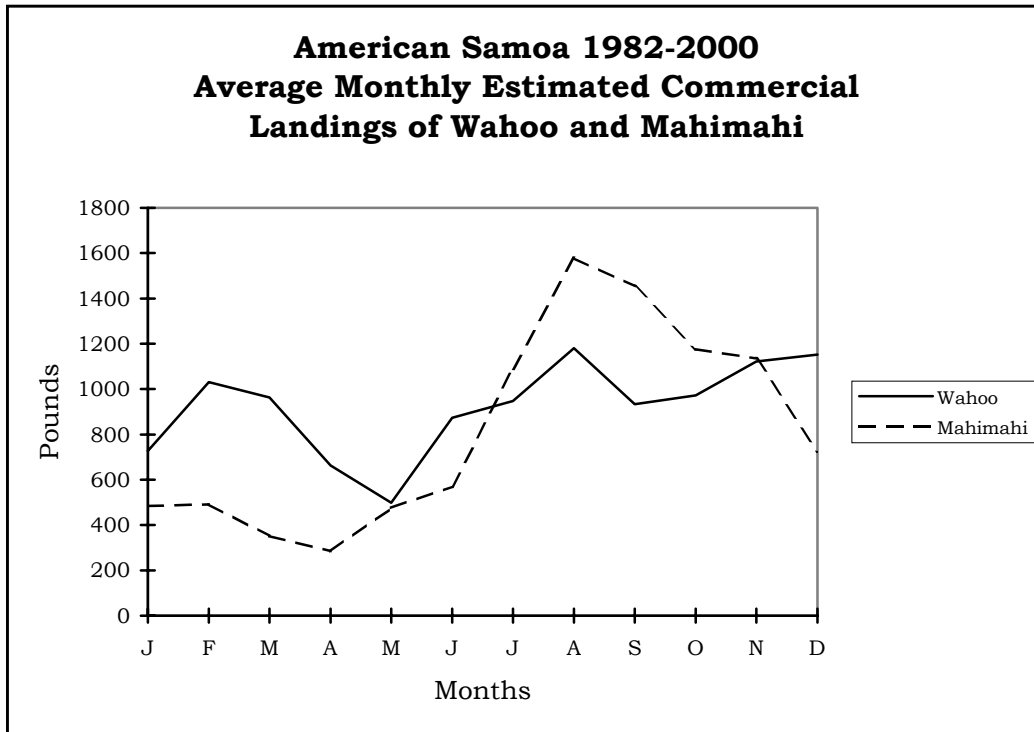


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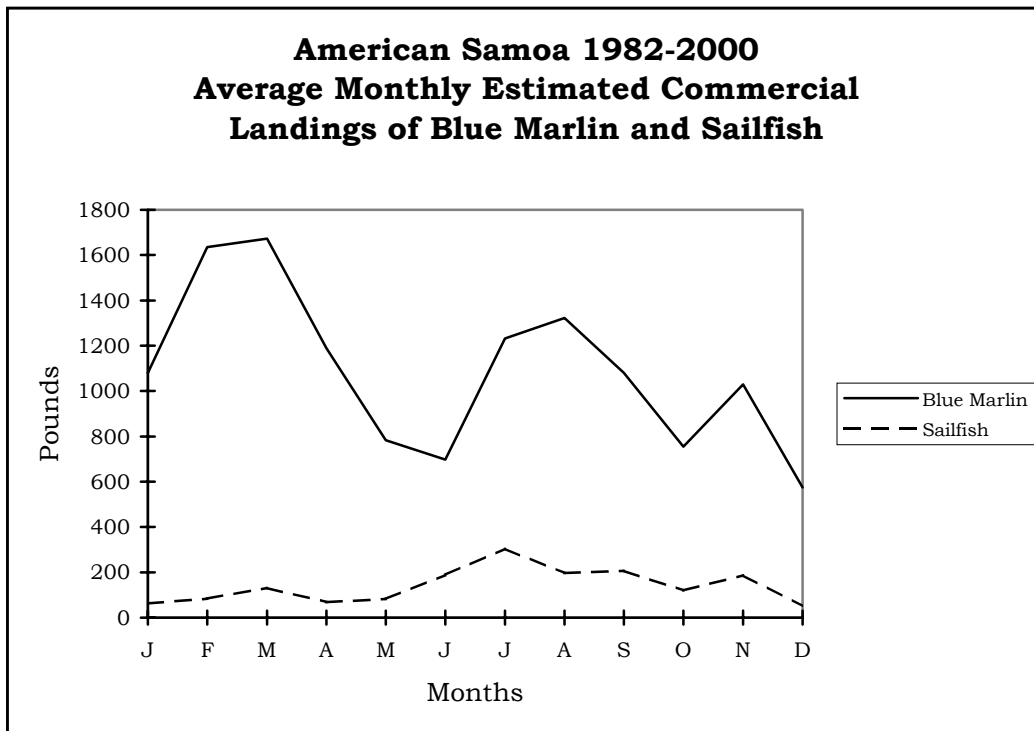


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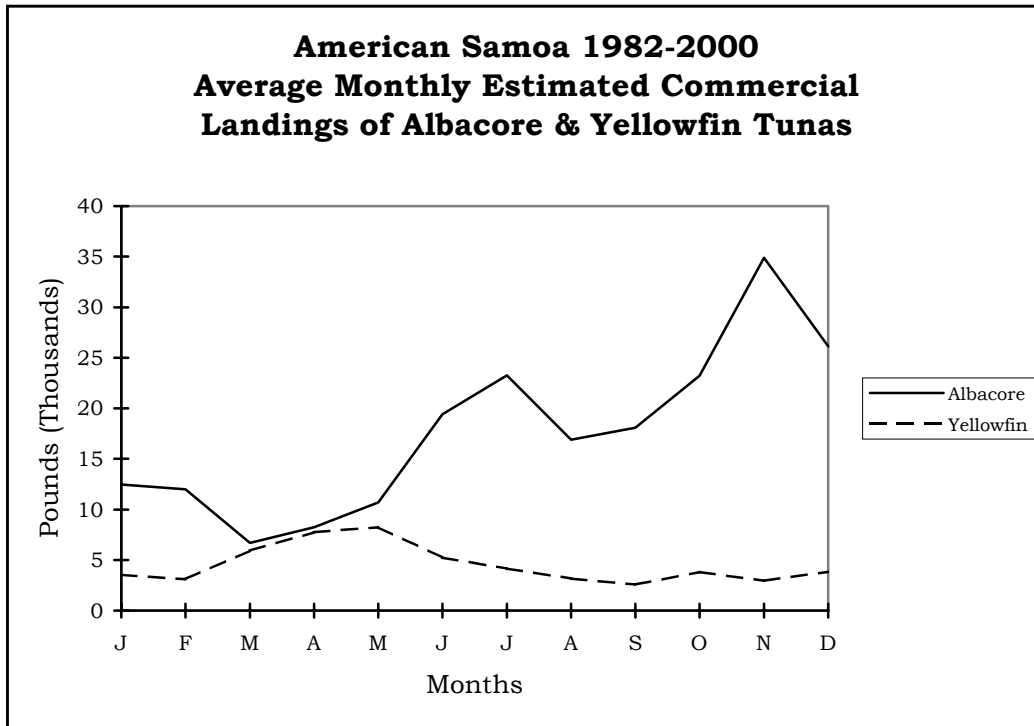


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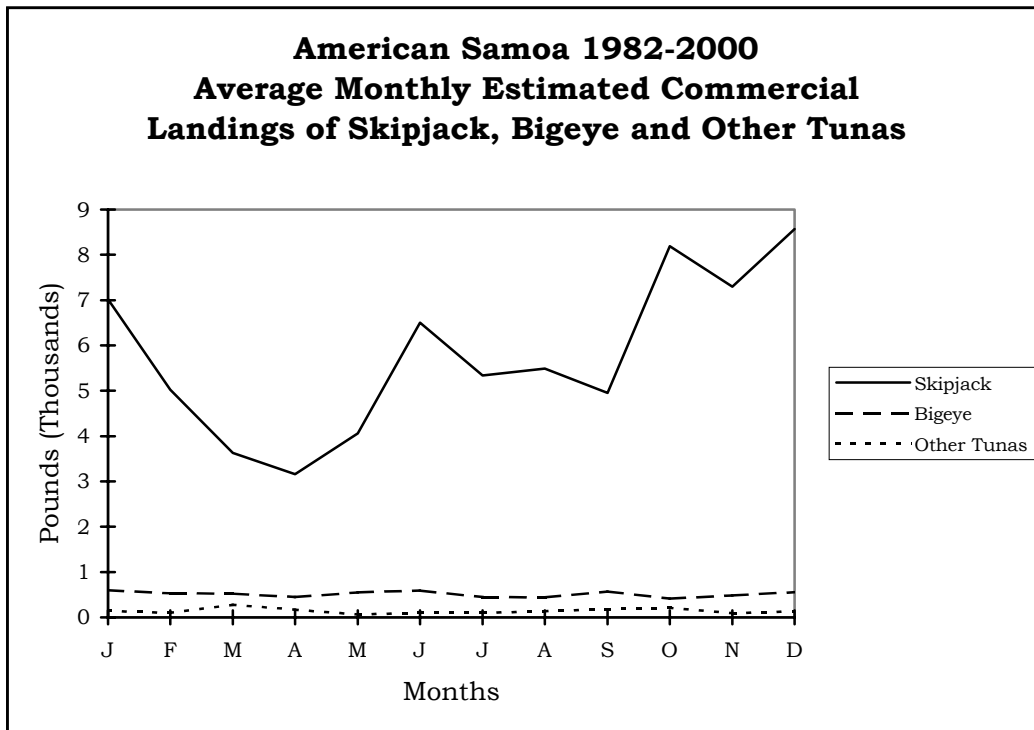


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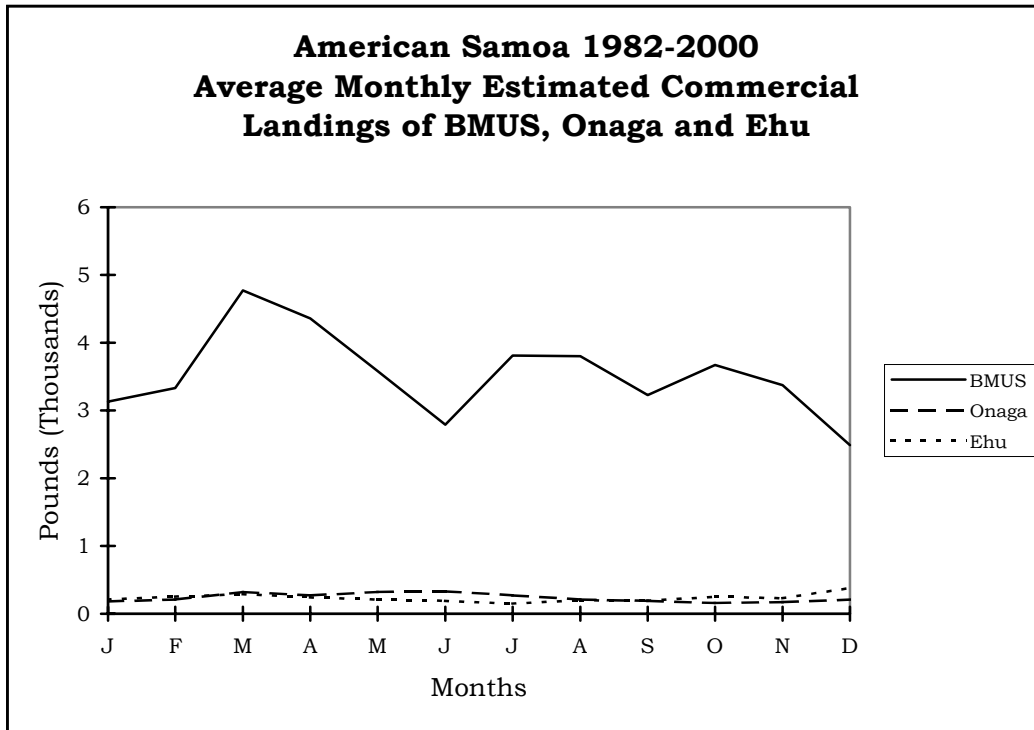


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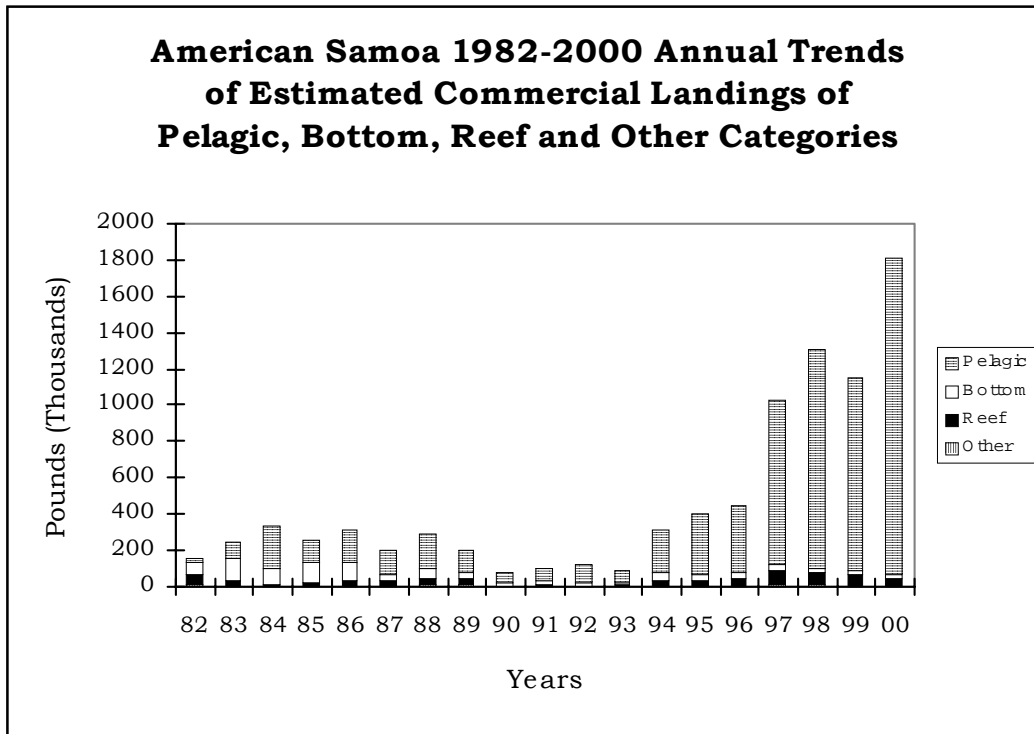


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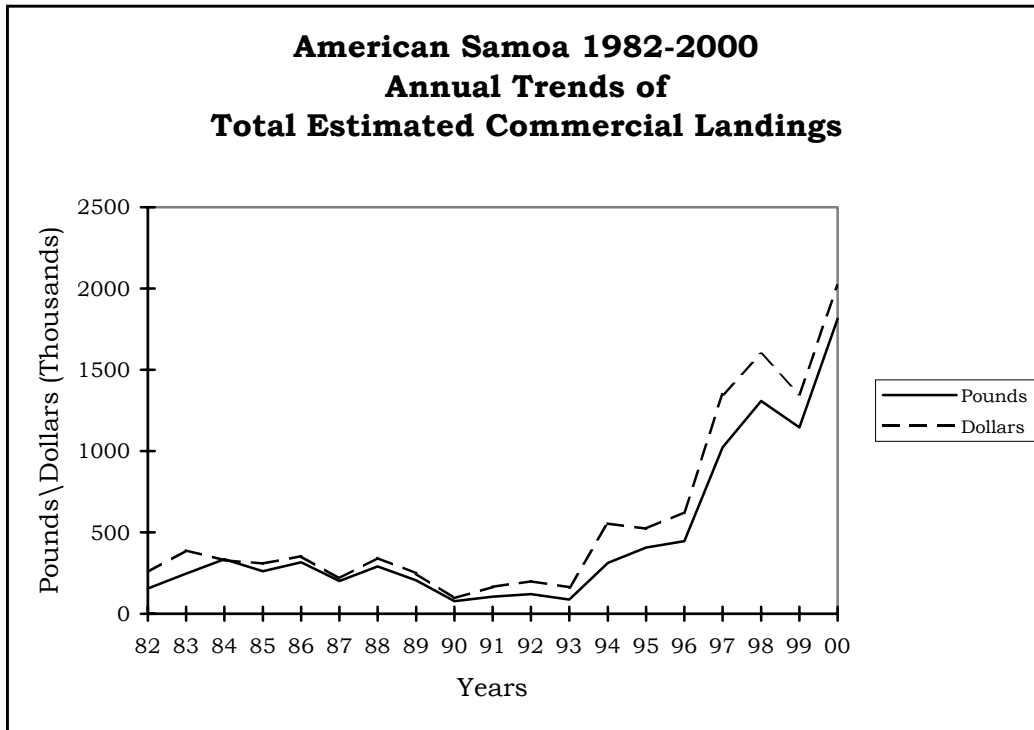


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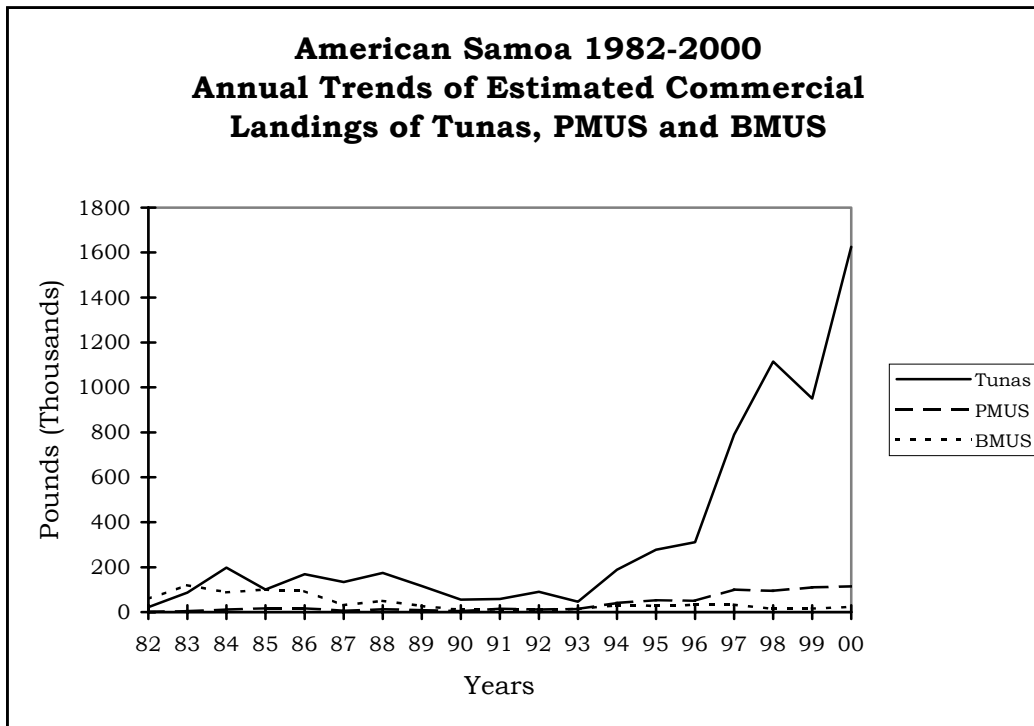


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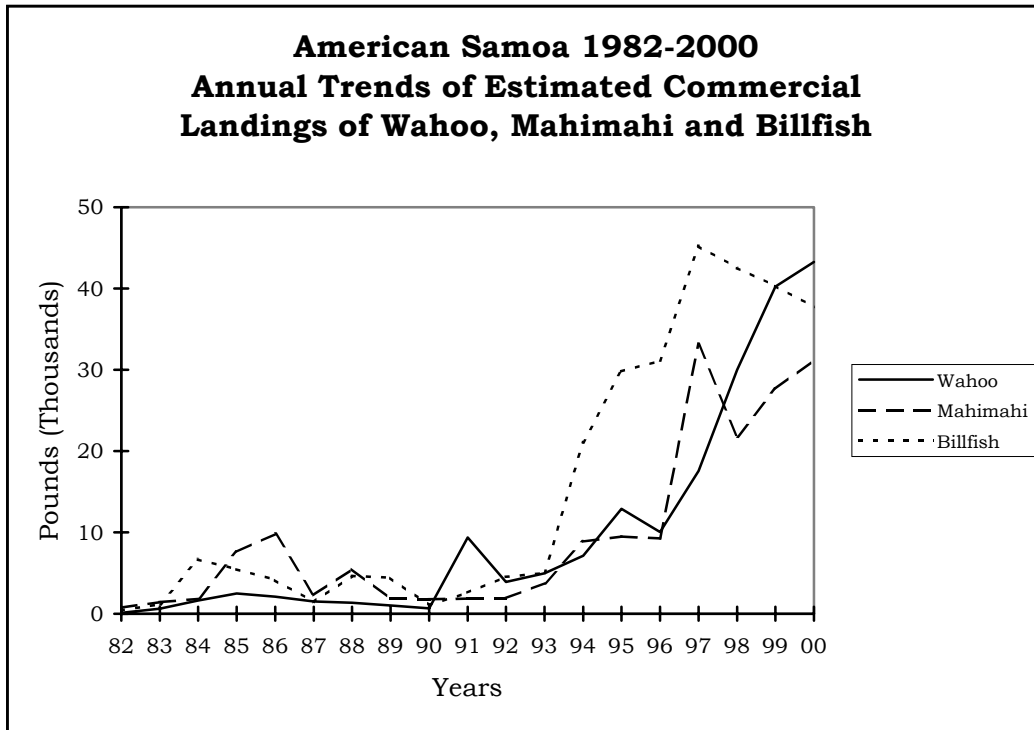


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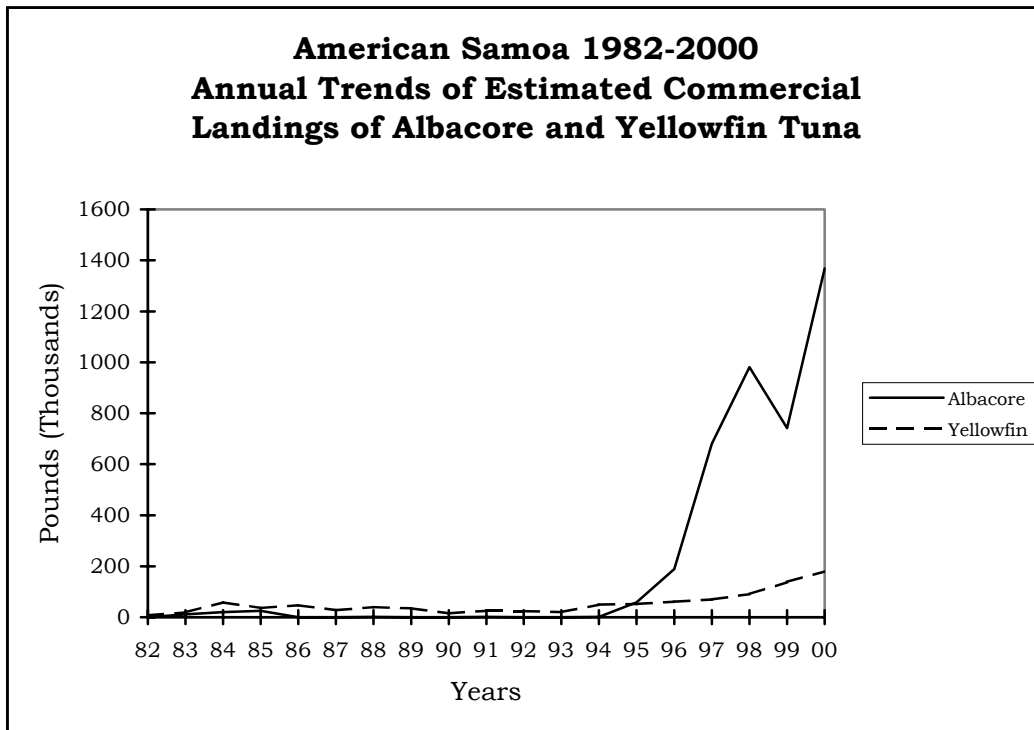


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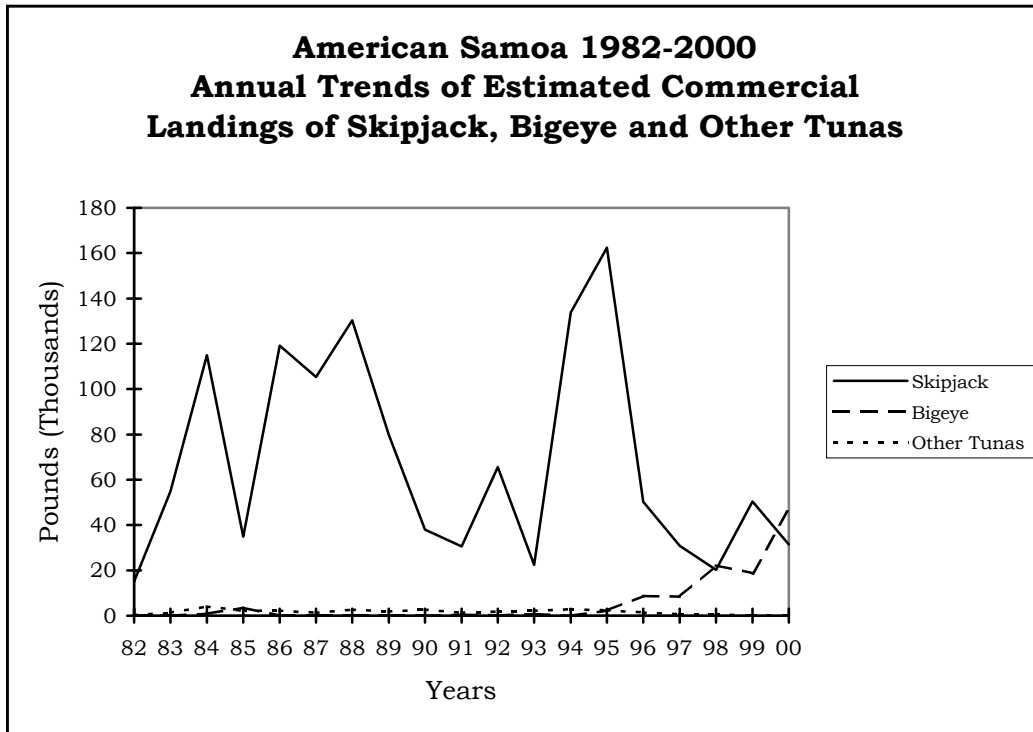


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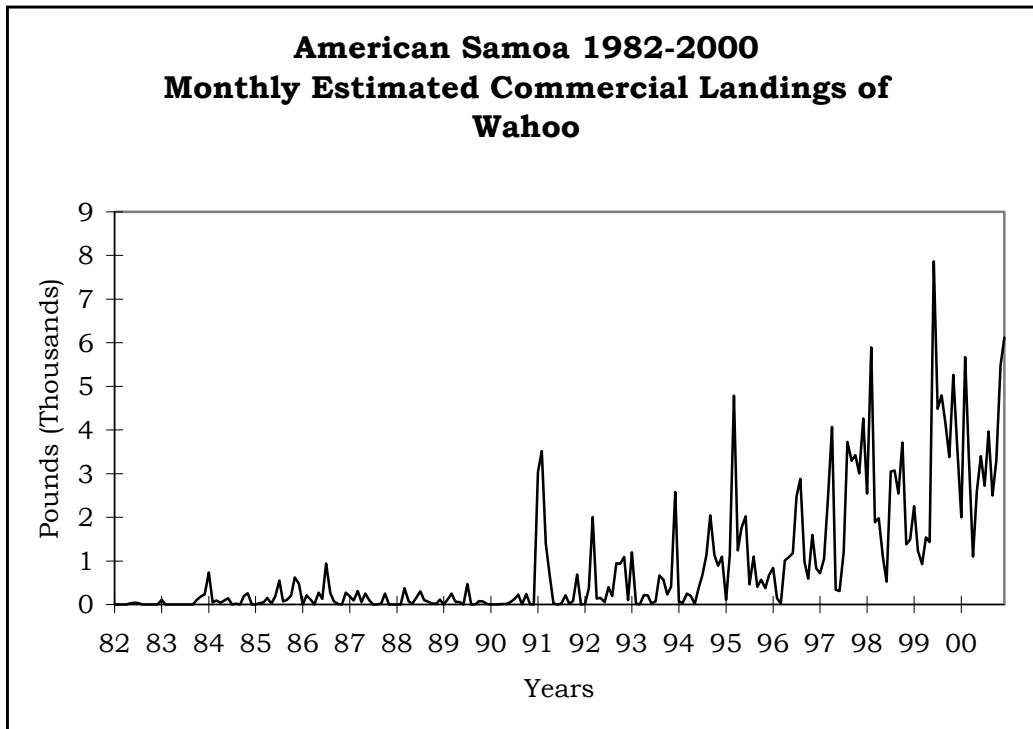


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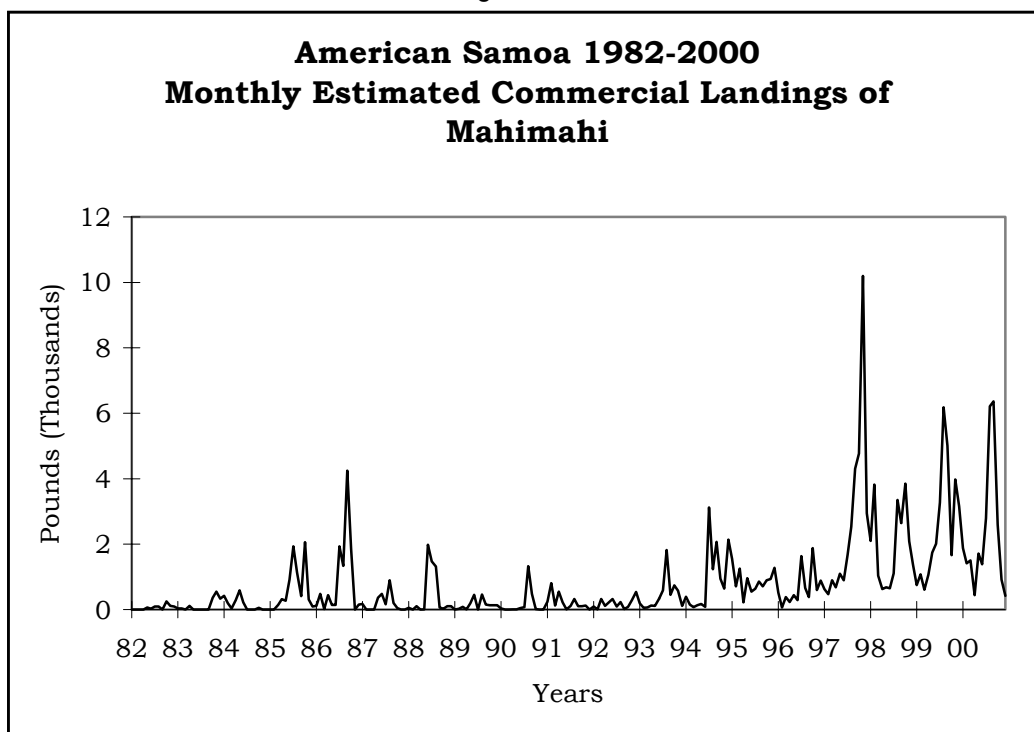


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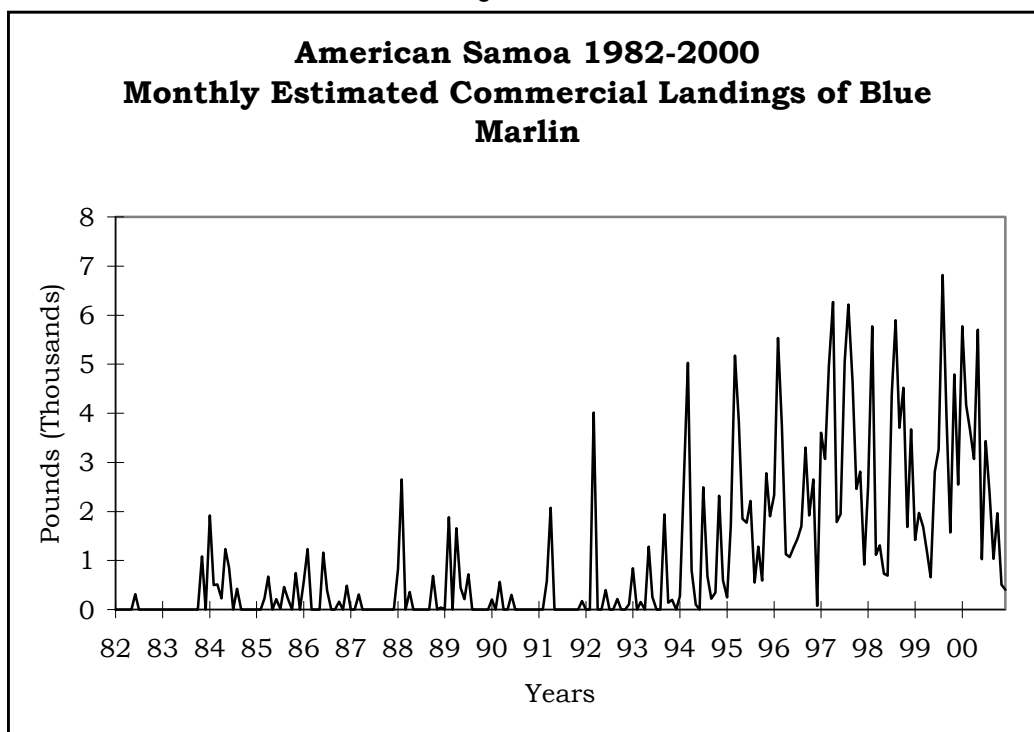


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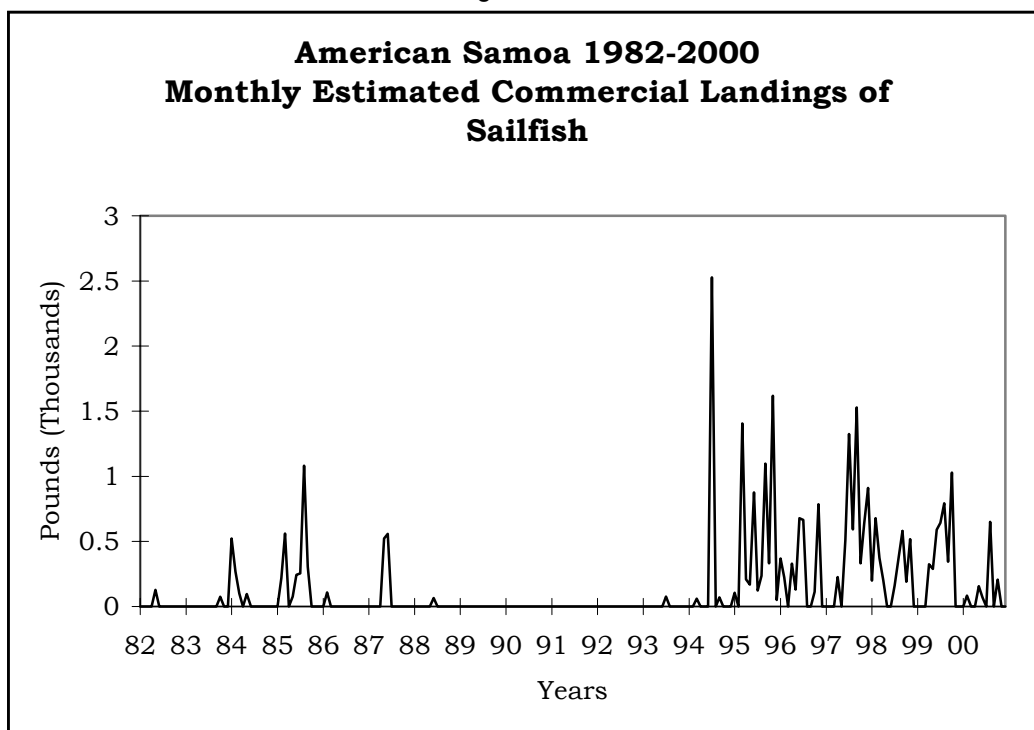


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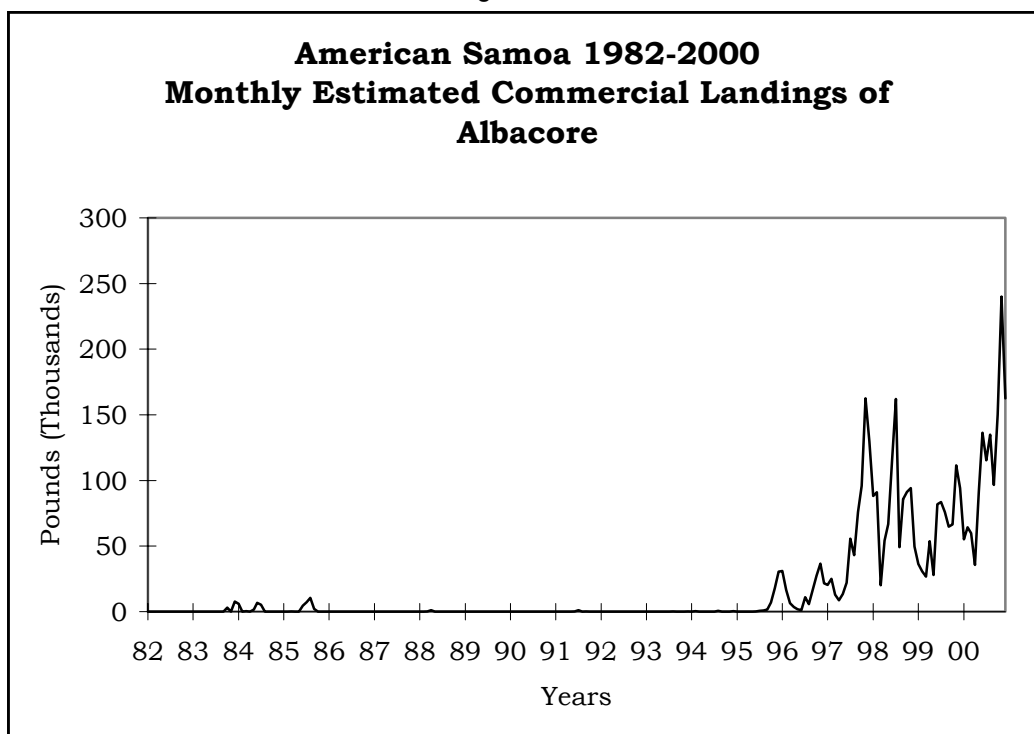


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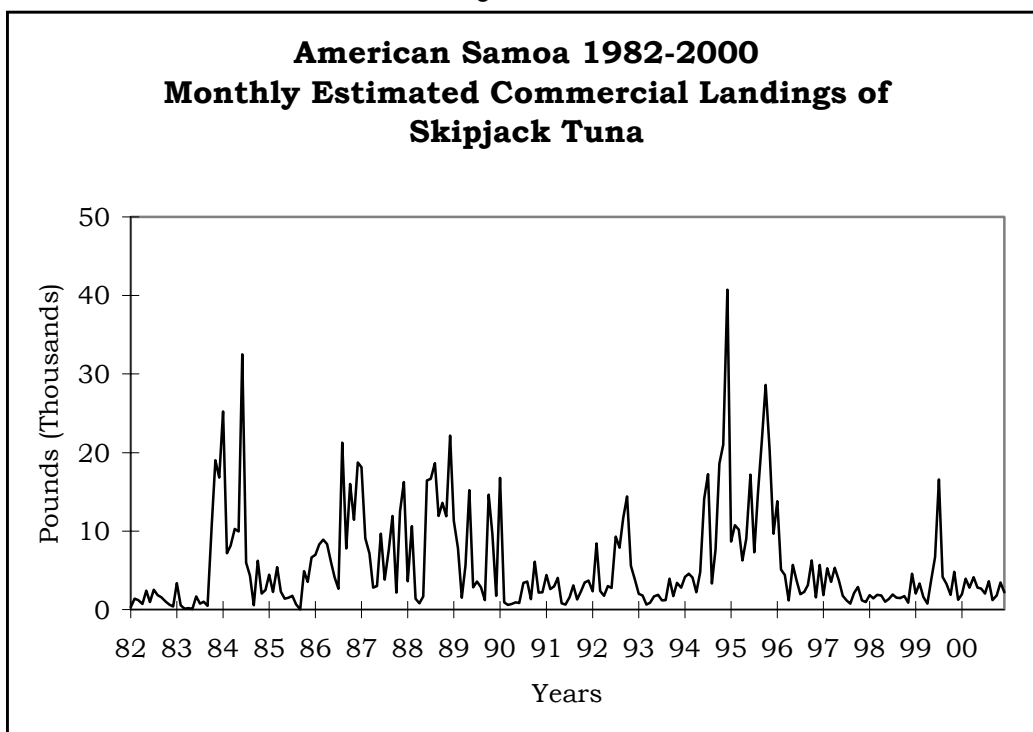


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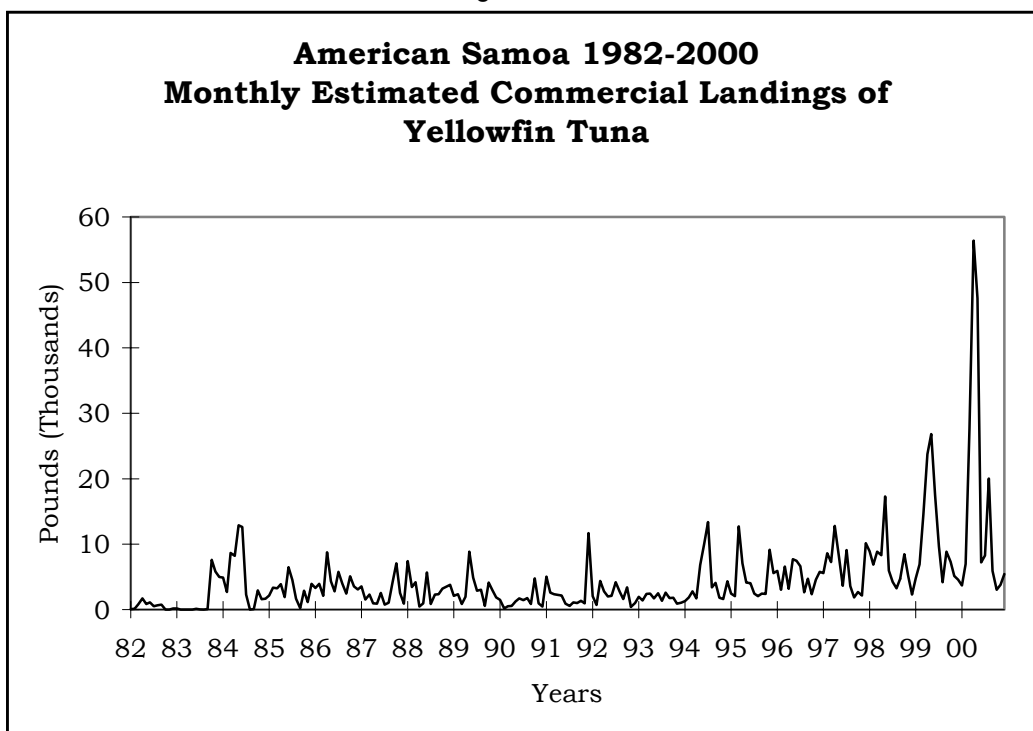


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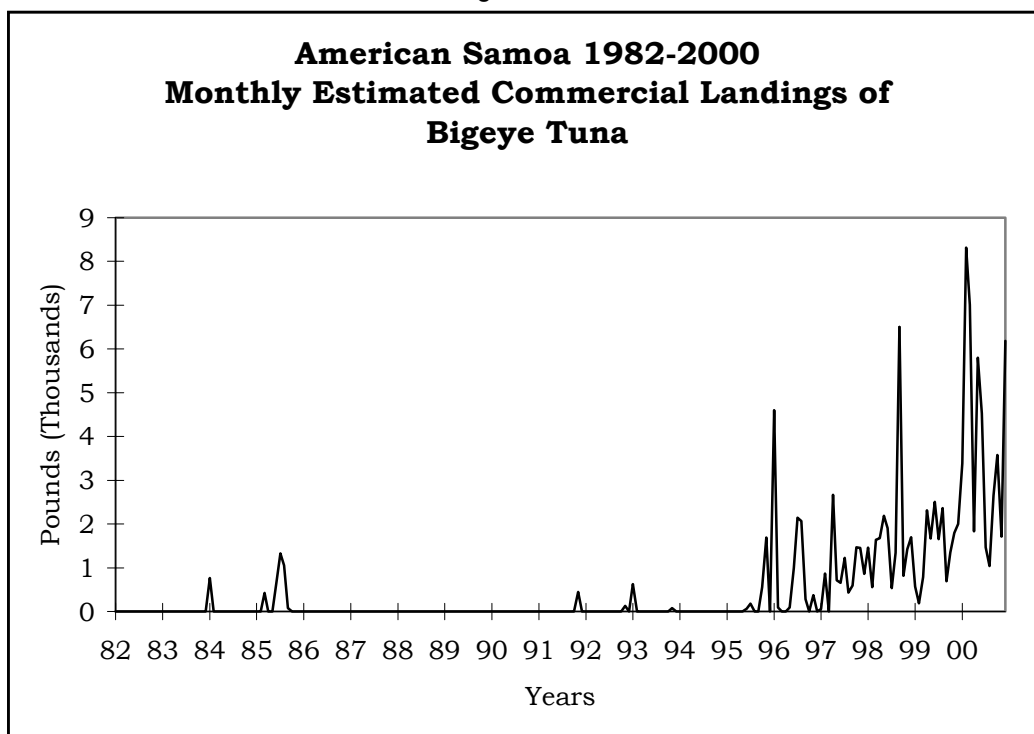


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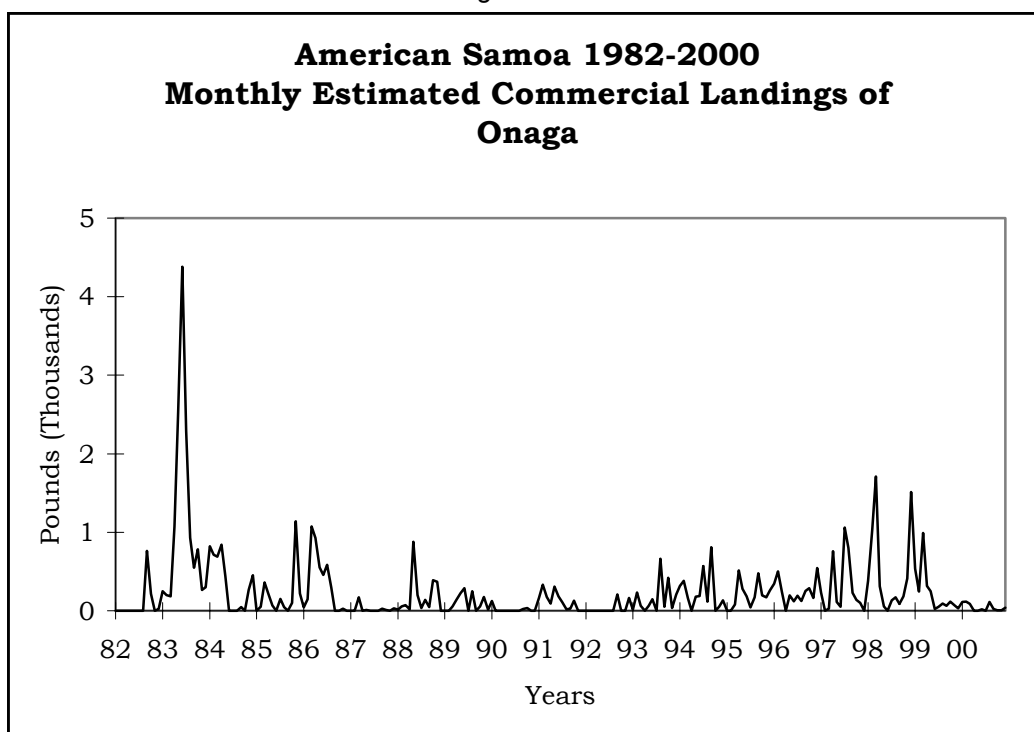
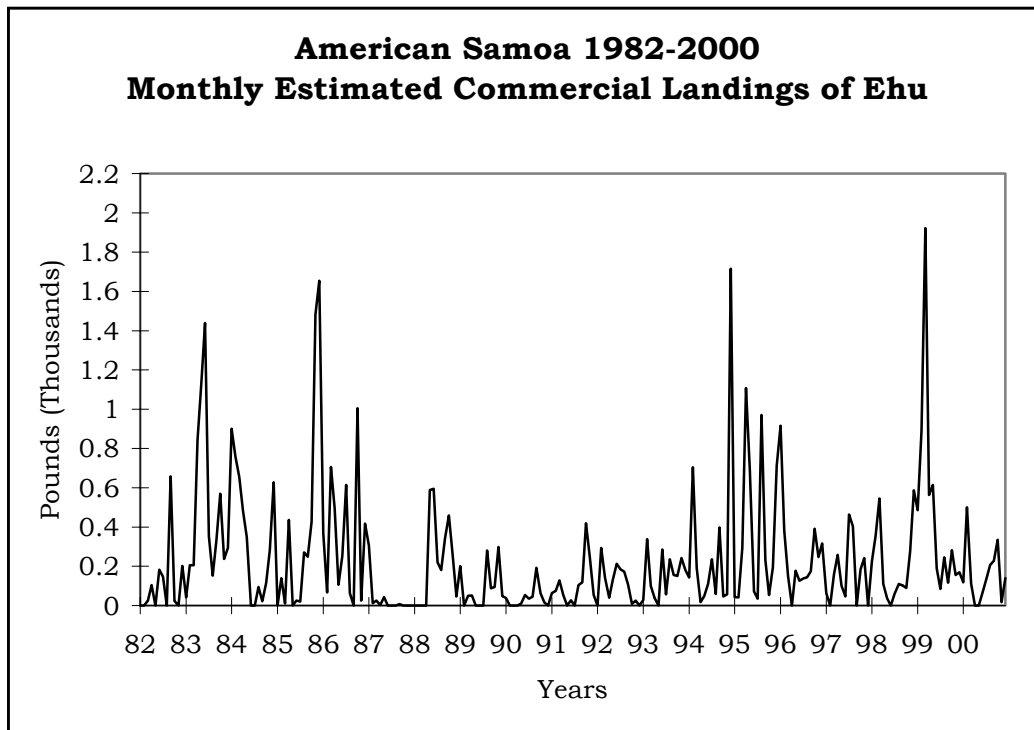


Figure II.4.10



**COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS
2000 FISHERY STATISTICS**

Compiled by
Division of Fish and Wildlife
and the
Western Pacific Fishery Information Network

November 2002

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COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS 2000 FISHERY STATISTICS

INTRODUCTION

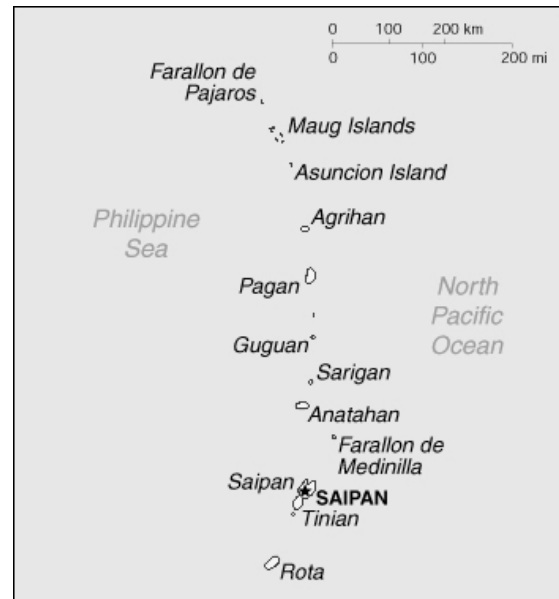
Location: 14° to 21°N latitude, 145°E
longitude

Main Islands: Saipan, Rota, Tinian

Population: 68,000

Economy: Tourism

The Division of Fish and Wildlife (DFW) has been collecting fishery statistics on the commercial fishing fleet of Saipan since the mid-1970's. It also began collecting information on vessels transshipping tuna out of Tinian in 1983.



CNMI

source: <<http://www.cia.gov/cia/publications/factbook/cq.html>>;

The World Factbook 1999

The chief domestic commercial fishery of the CNMI is a small boat, one-day troll fishery, and most of the boats are 12- to 24-foot outboard-powered, runabout-type vessels. However, a few larger boats are used mainly for bottomfish fishing around the islands north of Saipan, and a small charter fleet also exists. During 2000, 20 vessels were registered as "charter" for their primary use; this was down from 30 vessels the previous year primarily because of poor economic conditions. Also in 2000, 158 boats were registered to fish for subsistence or recreation, and another 126 boats were registered as either part-time or full-time commercial fishing boats.

Trolling is by far the most common fishing method, but bottomfishing and reef fishing are also popular. Reef fish make up a significant portion of the total commercial catch and are an important component of the local diet. In recent years several larger boats started fishing more intensively for bottomfish around the islands north of Saipan. While the vast majority of the domestic catch is consumed locally, there have been some exports of fish to Guam, Hawaii, and Japan.

In 1982 WPacFIN significantly improved data collecting and processing systems by providing computer hardware, software, and training. Since then numerous system upgrades and replacements have been implemented to keep up with changing technologies and the increasing demands for improved fisheries statistics.

DATA COLLECTING SYSTEM

DFW's principal method of collecting domestic commercial fisheries data is a dealer invoicing system, sometimes referred to as a "trip ticket" system. The DFW provides numbered two-part invoices to all purchasers of fresh fishery products (including hotels, restaurants, stores, fish markets, and roadside vendors). Dealers then complete an invoice each time they purchase fish directly from fishermen; one copy goes to DFW and one copy goes to their records.

Some advantages of this data collection method are that it is relatively inexpensive to implement and maintain, it is fairly easy to get complete coverage of the commercial fisheries, and DFW can provide feedback to dealers and fishermen to ensure data accuracy and continued cooperation.

There are some disadvantages: dependency on non-DFW personnel to identify the catch and record the data, restrictions on the types of data that can be collected, education and cooperation of all fish purchasers are required, and recordings of fish actually sold to dealers are limited. Therefore, a potentially important portion of the total landings is unrecorded.

Since 1982 DFW has tried to minimize these disadvantages in several ways: 1) maintain a close working relationship with dealers; 2) add new dealers to their list and educate them; and 3) implement a creel survey to help estimate total catch, including recreational and subsistence catch.

The current system collects data from dealers in Saipan, where DFW estimates over 90% of all CNMI commercial landings are made. The DFW also estimates that the proportion of total commercial landings that have been recorded in the Saipan database since 1983 is about 90%. Previous volumes of FSWP reported only recorded landings, but beginning with this volume, the data have been adjusted to represent 100% coverage and are referenced as "Estimated Commercial Landings" in the tables and charts.

Information collected from the fishermen includes the following:

- | | |
|-----------------------------|-------------------|
| • Date | • Weight (pounds) |
| • Buyer's name (dealer) | • Price per pound |
| • Seller's name (fisherman) | • Value |
| • Species | • Invoice number |

These data elements are collected for all purchases of fishery products; however, species identification is frequently made only to a group level, especially for reef fish.

DATA PROCESSING SYSTEM

At the beginning of each month, a DFW employee visits each of the dealers on Saipan to collect the previous month's invoices, to resolve problems, and to answer any questions the dealers may have. The invoices are then returned to the office for an initial visual edit during the coding process and entered into the "Purchase" database. After the records are entered, reports are generated to help verify that all data were entered correctly. On a quarterly basis, copies of the database are sent to the Honolulu Laboratory, where the data are transferred to the central computer for additional verification before generating summary reports. These reports and databases are then ready for use by qualified WPacFIN participants.

DATA REPORTING SYSTEM

After all editing, adjustment, and quality control activities have been completed, monthly and annual summary reports by species are generated. Each monthly report contains a subtotal for the sum of all species for that month. Annual reports contain the total landings for each species and the total recorded landings for all species for the calendar year.

Please note that, starting with this volume, commercial landings data have been adjusted to reflect total coverage and are referenced as "Estimated Commercial Landings" in the charts and tables. Also, some of the charts in this volume are new or modified from earlier volumes.

Modified

III.2.2 Billfish added

New

III.1.5 Monthly Landings of Bigeye Scad, Emperors, and Onaga
 III.2.4 Avg. Monthly Landings of Bigeye Scad, Emperors, and Onaga
 III.2.5 Avg. Monthly Landings of Parrotfish, Spiny Lobsters, and Rabbitfish
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 III.4.4 Monthly Landings of Dogtooth Tuna
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 III.4.9 Monthly Landings of Onaga
 III.4.10 Monthly Landings of Spiny Lobster
 III.4.11 Monthly Landings of Rabbitfish

III.4

The following species, species groups, and abbreviations are used in the tables and graphs of CNMI's data:

I. Pelagic Management Unit Species (PMUS)

Although the Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to include tunas in the Pacific PMUS (PPMUS), this report series will continue to specify tunas as a separate category from the PPMUS. The PMUS category in this report includes:

Mahimahi (dolphin)
Marlin
Shortbill spearfish
Sailfish
Wahoo
Sharks

II. Bottomfish Management Unit Species (BMUS)

Jacks (unclassified, but excluding bigeye scad)
Amberjack
Bottom fish (unclassified)
Ehu (red snapper)
Gindai (flower snapper)
Grouper (unclassified)
Kalekale (pink snapper)
Lehi (silverjaw snapper)
Onaga (red or longtail snapper)
Opakapaka (pink snapper)
Uku (gray snapper)
Emperorfish

III. Billfish

Marlin (probably all blue marlin but could also include the rarely landed striped and black marlin)
Shortbill spearfish
Sailfish

IV. Tunas

Tunas (unclassified)
Skipjack tuna

IV. Tunas (cont.)

Yellowfin tuna
Dogtooth tuna

V. Other Tuna

The above tunas excluding skipjack and yellowfin tuna

VI. Fisheries Categories

A. Pelagics

All PMUS and tuna species plus the following:
Troll fish (unclassified)
Barracuda
Rainbow runner

B. Bottom Fish

Same as BMUS

C. Reef Fish

Reef fish (unclassified)
Giant wrasse
Rabbitfish (hitting, hitting feda, menahac, and sesjun)
Rudderfish
Squirrelfish
Parrotfish
Snapper
Surgeonfish
Unicornfish
Goatfish

D. Other

Miscellaneous	Eels
Mullet	Invertebrates (unclassified)
Milkfish	Coconut crab
Crabs (unclassified)	Shrimp
Lobster	Squid
Octopus	Seaweeds
Turtle	Imported
Bigeye scad	

III.6

Table III.1.1

CNMI 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	26,238	\$73,052	\$2.78
Jacks (Misc.)	2,142	\$5,634	\$2.63
Mullet	111	\$292	\$2.62
Sharks	75	\$75	\$1.00
Bottom Fish	13,451	\$35,691	\$2.65
Sickle Pomfret	446	\$686	\$1.54
Ehu (Red Snapper)	45	\$128	\$2.85
Gindai (Flower Snap)	214	\$571	\$2.66
Grouper (Misc.)	3,474	\$8,125	\$2.34
Onaga (Red Snapper)	10,159	\$34,133	\$3.36
Opakapaka (Pink Snp)	1,633	\$4,715	\$2.89
Jobfish (Uku)	190	\$439	\$2.31
Silvermouth (Deep Lehi)	2,614	\$7,881	\$3.01
Amberjack	28	\$83	\$3.00
Reef Fish	129,888	\$302,548	\$2.33
Wrasse	760	\$2,280	\$3.00
Rabbitfish	13,559	\$44,569	\$3.29
Emperor (Mafute/misc.)	11,223	\$31,701	\$2.82
Squirrelfish	349	\$975	\$2.79
Parrotfish (Misc.)	9,467	\$28,442	\$3.00
Surgeonfish (Misc.)	2,545	\$7,501	\$2.95
Orangespine Unicornfish	4,883	\$14,439	\$2.96
Unicornfish (Misc.)	6,907	\$18,842	\$2.73
Goatfish (Misc.)	1,662	\$4,572	\$2.75
Troll Fish (Misc.)	4,950	\$7,587	\$1.53
Barracuda	244	\$466	\$1.91
Mahimahi	7,324	\$15,995	\$2.18
Blue Marlin	3,608	\$5,838	\$1.62
Rainbow Runner	1,405	\$3,164	\$2.25
Wahoo	4,097	\$9,593	\$2.34
Tunas (Misc.)	1,511	\$2,685	\$1.78
Skipjack Tuna	140,389	\$259,172	\$1.85
Dogtooth Tuna	2,398	\$4,592	\$1.91
Yellowfin Tuna	17,673	\$35,608	\$2.01
Saba (Kawakawa)	3,174	\$5,009	\$1.58
Invertebrates	144	\$905	\$6.27
Spiny Lobster	3,968	\$22,599	\$5.70
Octopus	747	\$1,806	\$2.42
** TOTAL **	433,696	\$1,002,390	\$2.31

III.7

Table III.1.2

CNMI January 2000 Estimated Commercial Landings

<u>Species</u>	<u>Pounds</u>	<u>Value</u>	<u>Price/Lb.</u>
Bigeye Scad	2,963	\$8,204	\$2.77
Jacks (Misc.)	41	\$118	\$2.91
Bottom Fish	1,175	\$3,099	\$2.64
Gindai (Flower Snap)	30	\$60	\$2.00
Grouper (Misc.)	195	\$422	\$2.16
Onaga (Red Snapper)	845	\$3,294	\$3.90
Opakapaka (Pink Snp)	53	\$176	\$3.31
Silvermouth (Deep Lehi)	58	\$201	\$3.50
Reef Fish	13,984	\$33,425	\$2.39
Rabbitfish	635	\$2,039	\$3.21
Emperor (Mafute/misc.)	1,046	\$2,621	\$2.51
Squirrelfish	9	\$18	\$2.00
Parrotfish (Misc.)	232	\$676	\$2.92
Orangespine Unicornfish	16	\$41	\$2.50
Unicornfish (Misc.)	67	\$167	\$2.50
Goatfish (Misc.)	172	\$431	\$2.51
Troll Fish (Misc.)	466	\$979	\$2.10
Barracuda	61	\$109	\$1.78
Mahimahi	922	\$2,008	\$2.18
Rainbow Runner	24	\$48	\$2.00
Wahoo	244	\$580	\$2.37
Tunas (Misc.)	623	\$1,074	\$1.73
Skipjack Tuna	9,280	\$17,053	\$1.84
Dogtooth Tuna	64	\$148	\$2.29
Yellowfin Tuna	1,083	\$2,176	\$2.01
Spiny Lobster	144	\$647	\$4.50
Octopus	6	\$10	\$1.65
** TOTAL **	34,437	\$79,823	\$2.32

III.8

Table III.1.3

CNMI February 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,302	\$6,645	\$2.89
Jacks (Misc.)	101	\$253	\$2.50
Bottom Fish	1,075	\$2,902	\$2.70
Gindai (Flower Snap)	170	\$468	\$2.75
Grouper (Misc.)	9	\$22	\$2.50
Onaga (Red Snapper)	69	\$302	\$4.36
Opakapaka (Pink Snp)	143	\$454	\$3.17
Jobfish (Uku)	4	\$11	\$2.50
Reef Fish	16,121	\$38,478	\$2.39
Rabbitfish	849	\$2,741	\$3.23
Emperor (Mafute/misc.)	415	\$1,100	\$2.65
Squirrelfish	10	\$25	\$2.50
Parrotfish (Misc.)	193	\$620	\$3.21
Surgeonfish (Misc.)	13	\$19	\$1.50
Unicornfish (Misc.)	23	\$34	\$1.50
Goatfish (Misc.)	40	\$100	\$2.50
Troll Fish (Misc.)	439	\$958	\$2.18
Barracuda	28	\$70	\$2.50
Mahimahi	1,128	\$2,306	\$2.04
Blue Marlin	209	\$409	\$1.96
Rainbow Runner	44	\$106	\$2.43
Wahoo	429	\$1,036	\$2.42
Tunas (Misc.)	169	\$299	\$1.77
Skipjack Tuna	12,344	\$23,775	\$1.93
Yellowfin Tuna	1,587	\$3,117	\$1.96
Spiny Lobster	542	\$3,116	\$5.75
Octopus	9	\$22	\$2.50
** TOTAL **	38,465	\$89,389	\$2.32

III.9

Table III.1.4

CNMI March 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,538	\$7,197	\$2.84
Jacks (Misc.)	46	\$139	\$3.00
Bottom Fish	1,077	\$2,898	\$2.69
Grouper (Misc.)	14	\$34	\$2.50
Onaga (Red Snapper)	201	\$915	\$4.54
Opakapaka (Pink Snp)	70	\$204	\$2.91
Reef Fish	13,374	\$32,005	\$2.39
Rabbitfish	969	\$3,148	\$3.25
Emperor (Mafute/misc.)	511	\$1,394	\$2.73
Parrotfish (Misc.)	194	\$610	\$3.15
Unicornfish (Misc.)	63	\$125	\$2.00
Goatfish (Misc.)	38	\$94	\$2.50
Troll Fish (Misc.)	199	\$454	\$2.28
Mahimahi	2,081	\$4,303	\$2.07
Blue Marlin	50	\$100	\$2.00
Rainbow Runner	48	\$107	\$2.25
Wahoo	424	\$1,036	\$2.44
Tunas (Misc.)	123	\$184	\$1.50
Skipjack Tuna	12,598	\$24,519	\$1.95
Dogtooth Tuna	311	\$732	\$2.35
Yellowfin Tuna	1,063	\$2,110	\$1.99
Spiny Lobster	387	\$2,244	\$5.80
** TOTAL **	36,377	\$84,550	\$2.32

III.10

Table III.1.5

CNMI April 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,692	\$7,524	\$2.79
Jacks (Misc.)	297	\$819	\$2.76
Mullet	38	\$94	\$2.50
Bottom Fish	581	\$1,582	\$2.73
Grouper (Misc.)	333	\$924	\$2.78
Onaga (Red Snapper)	501	\$1,803	\$3.60
Opakapaka (Pink Snp)	114	\$284	\$2.50
Silvermouth (Deep Lehi)	267	\$869	\$3.26
Reef Fish	9,208	\$23,246	\$2.52
Rabbitfish	826	\$2,709	\$3.28
Emperor (Mafute/misc.)	520	\$1,450	\$2.79
Parrotfish (Misc.)	682	\$2,021	\$2.96
Orangespine Unicornfish	194	\$581	\$3.00
Unicornfish (Misc.)	414	\$1,036	\$2.50
Goatfish (Misc.)	87	\$247	\$2.82
Troll Fish (Misc.)	381	\$743	\$1.95
Mahimahi	988	\$2,127	\$2.15
Blue Marlin	120	\$210	\$1.75
Rainbow Runner	116	\$306	\$2.63
Wahoo	354	\$735	\$2.08
Tunas (Misc.)	91	\$251	\$2.75
Skipjack Tuna	13,150	\$24,882	\$1.89
Dogtooth Tuna	184	\$369	\$2.00
Yellowfin Tuna	1,894	\$3,818	\$2.02
Invertebrates	144	\$905	\$6.27
Spiny Lobster	457	\$2,619	\$5.74
Octopus	46	\$75	\$1.61
** TOTAL **	34,678	\$82,228	\$2.37

III.11

Table III.1.6

CNMI May 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,926	\$7,760	\$2.65
Jacks (Misc.)	90	\$180	\$2.00
Bottom Fish	555	\$1,486	\$2.68
Grouper (Misc.)	104	\$268	\$2.57
Onaga (Red Snapper)	559	\$2,095	\$3.75
Opakapaka (Pink Snp)	336	\$923	\$2.75
Jobfish (Uku)	51	\$113	\$2.21
Silvermouth (Deep Lehi)	93	\$314	\$3.40
Amberjack	28	\$83	\$3.00
Reef Fish	10,936	\$25,847	\$2.36
Rabbitfish	585	\$1,875	\$3.20
Emperor (Mafute/misc.)	643	\$1,725	\$2.68
Squirrelfish	33	\$81	\$2.50
Parrotfish (Misc.)	64	\$200	\$3.12
Surgeonfish (Misc.)	55	\$138	\$2.50
Goatfish (Misc.)	82	\$205	\$2.50
Troll Fish (Misc.)	133	\$214	\$1.62
Mahimahi	74	\$148	\$2.00
Blue Marlin	406	\$609	\$1.50
Rainbow Runner	50	\$123	\$2.46
Wahoo	424	\$995	\$2.35
Tunas (Misc.)	54	\$108	\$2.00
Skipjack Tuna	13,837	\$25,855	\$1.87
Dogtooth Tuna	275	\$428	\$1.56
Yellowfin Tuna	1,802	\$3,694	\$2.05
Spiny Lobster	696	\$3,982	\$5.72
** TOTAL **	34,889	\$79,450	\$2.28

III.12

Table III.1.7

CNMI June 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	3,471	\$9,175	\$2.64
Jacks (Misc.)	325	\$774	\$2.38
Bottom Fish	1,453	\$3,801	\$2.62
Grouper (Misc.)	554	\$1,245	\$2.25
Onaga (Red Snapper)	2,360	\$7,239	\$3.07
Opakapaka (Pink Snp)	85	\$255	\$3.00
Jobfish (Uku)	24	\$59	\$2.50
Silvermouth (Deep Lehi)	781	\$2,337	\$2.99
Reef Fish	8,190	\$18,648	\$2.28
Rabbitfish	918	\$2,972	\$3.24
Emperor (Mafute/misc.)	520	\$1,400	\$2.69
Squirrelfish	6	\$16	\$2.50
Parrotfish (Misc.)	930	\$2,701	\$2.90
Surgeonfish (Misc.)	35	\$53	\$1.50
Orangespine Unicornfish	438	\$1,306	\$2.99
Unicornfish (Misc.)	533	\$1,329	\$2.50
Goatfish (Misc.)	160	\$455	\$2.84
Troll Fish (Misc.)	1,435	\$1,472	\$1.03
Mahimahi	59	\$119	\$2.00
Blue Marlin	110	\$165	\$1.50
Rainbow Runner	141	\$285	\$2.03
Wahoo	189	\$461	\$2.43
Tunas (Misc.)	90	\$158	\$1.75
Skipjack Tuna	15,182	\$23,250	\$1.53
Dogtooth Tuna	75	\$75	\$1.00
Yellowfin Tuna	1,549	\$2,980	\$1.92
Saba (Kawakawa)	19	\$38	\$2.00
Spiny Lobster	243	\$1,336	\$5.49
Octopus	7	\$18	\$2.50
** TOTAL **	39,880	\$84,118	\$2.11

III.13

Table III.1.8

CNMI July 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	1,894	\$5,451	\$2.88
Jacks (Misc.)	241	\$628	\$2.60
Bottom Fish	1,660	\$4,314	\$2.60
Sickle Pomfret	33	\$65	\$2.00
Ehu (Red Snapper)	45	\$128	\$2.85
Grouper (Misc.)	495	\$1,084	\$2.19
Onaga (Red Snapper)	2,190	\$6,896	\$3.15
Opakapaka (Pink Snp)	232	\$664	\$2.86
Jobfish (Uku)	13	\$31	\$2.50
Silvermouth (Deep Lehi)	536	\$1,538	\$2.87
Reef Fish	9,700	\$21,534	\$2.22
Rabbitfish	941	\$3,150	\$3.35
Emperor (Mafute/misc.)	880	\$2,399	\$2.73
Parrotfish (Misc.)	1,094	\$3,292	\$3.01
Orangespine Unicornfish	500	\$1,416	\$2.83
Unicornfish (Misc.)	600	\$1,538	\$2.56
Goatfish (Misc.)	148	\$402	\$2.72
Troll Fish (Misc.)	1,473	\$2,215	\$1.50
Blue Marlin	760	\$1,209	\$1.59
Rainbow Runner	170	\$414	\$2.43
Wahoo	318	\$750	\$2.36
Tunas (Misc.)	143	\$226	\$1.58
Skipjack Tuna	16,030	\$27,973	\$1.75
Dogtooth Tuna	138	\$209	\$1.52
Yellowfin Tuna	1,170	\$2,241	\$1.91
Saba (Kawakawa)	244	\$344	\$1.41
Spiny Lobster	260	\$1,414	\$5.44
Octopus	36	\$91	\$2.50
** TOTAL **	41,942	\$91,617	\$2.18

III.14

Table III.1.9

CNMI August 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	1,479	\$4,152	\$2.81
Jacks (Misc.)	300	\$820	\$2.73
Bottom Fish	1,169	\$3,127	\$2.67
Grouper (Misc.)	343	\$819	\$2.39
Onaga (Red Snapper)	784	\$2,612	\$3.33
Opakapaka (Pink Snp)	47	\$141	\$3.00
Silvermouth (Deep Lehi)	92	\$267	\$2.89
Reef Fish	9,315	\$20,857	\$2.24
Rabbitfish	1,094	\$3,608	\$3.30
Emperor (Mafute/misc.)	1,385	\$3,932	\$2.84
Parrotfish (Misc.)	1,022	\$3,073	\$3.01
Surgeonfish (Misc.)	260	\$780	\$3.00
Orangespine Unicornfish	736	\$2,203	\$2.99
Unicornfish (Misc.)	925	\$2,313	\$2.50
Goatfish (Misc.)	118	\$342	\$2.90
Troll Fish (Misc.)	343	\$428	\$1.25
Blue Marlin	486	\$889	\$1.83
Rainbow Runner	461	\$937	\$2.03
Wahoo	261	\$576	\$2.21
Tunas (Misc.)	13	\$22	\$1.75
Skipjack Tuna	14,484	\$25,467	\$1.76
Dogtooth Tuna	128	\$214	\$1.68
Yellowfin Tuna	1,367	\$2,634	\$1.93
Saba (Kawakawa)	244	\$439	\$1.80
Spiny Lobster	247	\$1,404	\$5.69
** TOTAL **	37,102	\$82,056	\$2.21

III.15

Table III.1.10

CNMI September 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,288	\$6,296	\$2.75
Jacks (Misc.)	245	\$677	\$2.76
Mullet	46	\$116	\$2.50
Bottom Fish	1,753	\$4,682	\$2.67
Sickle Pomfret	280	\$420	\$1.50
Grouper (Misc.)	483	\$907	\$1.88
Onaga (Red Snapper)	1,228	\$3,755	\$3.06
Opakapaka (Pink Snp)	198	\$618	\$3.11
Jobfish (Uku)	26	\$66	\$2.50
Silvermouth (Deep Lehi)	600	\$1,810	\$3.02
Reef Fish	10,654	\$24,132	\$2.27
Wrasse	106	\$319	\$3.00
Rabbitfish	1,681	\$5,559	\$3.31
Emperor (Mafute/misc.)	902	\$2,619	\$2.90
Squirrelfish	69	\$168	\$2.43
Parrotfish (Misc.)	1,320	\$3,966	\$3.00
Surgeonfish (Misc.)	610	\$1,795	\$2.94
Orangespine Unicornfish	828	\$2,418	\$2.92
Unicornfish (Misc.)	1,203	\$3,080	\$2.56
Goatfish (Misc.)	196	\$512	\$2.61
Mahimahi	38	\$94	\$2.50
Blue Marlin	439	\$843	\$1.92
Rainbow Runner	163	\$353	\$2.17
Wahoo	166	\$312	\$1.88
Tunas (Misc.)	146	\$225	\$1.54
Skipjack Tuna	11,562	\$21,871	\$1.89
Dogtooth Tuna	484	\$992	\$2.05
Yellowfin Tuna	1,676	\$3,296	\$1.97
Saba (Kawakawa)	521	\$803	\$1.54
Spiny Lobster	749	\$4,492	\$5.99
Octopus	109	\$272	\$2.50
** TOTAL **	40,769	\$97,463	\$2.39

III.16

Table III.1.11

CNMI October 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	3,108	\$9,102	\$2.93
Jacks (Misc.)	145	\$414	\$2.85
Sharks	75	\$75	\$1.00
Bottom Fish	1,260	\$3,195	\$2.54
Sickle Pomfret	134	\$201	\$1.50
Grouper (Misc.)	234	\$636	\$2.71
Onaga (Red Snapper)	734	\$2,592	\$3.53
Opakapaka (Pink Snp)	100	\$272	\$2.72
Jobfish (Uku)	12	\$33	\$2.75
Reef Fish	10,343	\$22,880	\$2.21
Wrasse	55	\$165	\$3.00
Rabbitfish	1,892	\$6,286	\$3.32
Emperor (Mafute/misc.)	2,372	\$6,915	\$2.92
Parrotfish (Misc.)	1,304	\$3,899	\$2.99
Surgeonfish (Misc.)	466	\$1,399	\$3.00
Orangespine Unicornfish	927	\$2,750	\$2.97
Unicornfish (Misc.)	1,146	\$3,439	\$3.00
Goatfish (Misc.)	210	\$593	\$2.82
Troll Fish (Misc.)	82	\$123	\$1.50
Barracuda	40	\$78	\$1.95
Mahimahi	432	\$943	\$2.18
Blue Marlin	528	\$609	\$1.15
Rainbow Runner	97	\$239	\$2.46
Wahoo	614	\$1,408	\$2.29
Skipjack Tuna	135	\$270	\$2.00
Skipjack Tuna	13,398	\$24,258	\$1.81
Dogtooth Tuna	159	\$318	\$2.00
Yellowfin Tuna	2,512	\$4,782	\$1.90
Saba (Kawakawa)	1,710	\$2,550	\$1.49
Spiny Lobster	76	\$443	\$5.80
Octopus	210	\$531	\$2.53
** TOTAL **	44,509	\$101,395	\$2.28

III.17

Table III.1.12

CNMI November 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	538	\$1,438	\$2.68
Jacks (Misc.)	197	\$491	\$2.49
Bottom Fish	890	\$2,395	\$2.69
Grouper (Misc.)	309	\$681	\$2.20
Onaga (Red Snapper)	87	\$304	\$3.50
Opakapaka (Pink Snp)	25	\$69	\$2.75
Jobfish (Uku)	31	\$63	\$2.00
Silvermouth (Deep Lehi)	121	\$323	\$2.67
Reef Fish	8,790	\$19,812	\$2.25
Wrasse	359	\$1,076	\$3.00
Rabbitfish	1,570	\$5,190	\$3.31
Emperor (Mafute/misc.)	954	\$2,905	\$3.04
Squirrelfish	56	\$169	\$3.00
Parrotfish (Misc.)	834	\$2,482	\$2.98
Surgeonfish (Misc.)	429	\$1,286	\$3.00
Orangespine Unicornfish	374	\$1,110	\$2.97
Unicornfish (Misc.)	921	\$2,745	\$2.98
Goatfish (Misc.)	160	\$458	\$2.86
Barracuda	10	\$25	\$2.50
Mahimahi	754	\$1,853	\$2.46
Blue Marlin	500	\$794	\$1.59
Rainbow Runner	13	\$31	\$2.50
Wahoo	238	\$636	\$2.68
Skipjack Tuna	1,280	\$2,994	\$2.34
Dogtooth Tuna	204	\$341	\$1.67
Yellowfin Tuna	595	\$1,431	\$2.41
Saba (Kawakawa)	171	\$298	\$1.74
Spiny Lobster	34	\$194	\$5.79
Octopus	211	\$529	\$2.50
** TOTAL **	20,655	\$52,123	\$2.52

III.18

Table III.1.13

CNMI December 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	39	\$108	\$2.75
Jacks (Misc.)	114	\$321	\$2.82
Mullet	28	\$83	\$3.00
Bottom Fish	804	\$2,210	\$2.75
Gindai (Flower Snap)	14	\$43	\$3.00
Grouper (Misc.)	403	\$1,084	\$2.69
Onaga (Red Snapper)	599	\$2,325	\$3.88
Opakapaka (Pink Snp)	231	\$656	\$2.84
Jobfish (Uku)	29	\$63	\$2.20
Silvermouth (Deep Lehi)	68	\$222	\$3.29
Reef Fish	9,273	\$21,683	\$2.34
Wrasse	240	\$720	\$3.00
Rabbitfish	1,599	\$5,292	\$3.31
Emperor (Mafute/misc.)	1,075	\$3,241	\$3.01
Squirrelfish	166	\$499	\$3.00
Parrotfish (Misc.)	1,599	\$4,904	\$3.07
Surgeonfish (Misc.)	678	\$2,033	\$3.00
Orangespine Unicornfish	871	\$2,614	\$3.00
Unicornfish (Misc.)	1,013	\$3,038	\$3.00
Goatfish (Misc.)	251	\$734	\$2.92
Barracuda	105	\$184	\$1.75
Mahimahi	849	\$2,096	\$2.47
Rainbow Runner	80	\$216	\$2.70
Wahoo	438	\$1,068	\$2.44
Tunas (Misc.)	60	\$139	\$2.31
Skipjack Tuna	7,108	\$17,006	\$2.39
Dogtooth Tuna	376	\$768	\$2.04
Yellowfin Tuna	1,374	\$3,328	\$2.42
Saba (Kawakawa)	266	\$538	\$2.02
Spiny Lobster	134	\$708	\$5.29
Octopus	112	\$259	\$2.31
** TOTAL **	29,995	\$78,177	\$2.61

Figure III.1.1

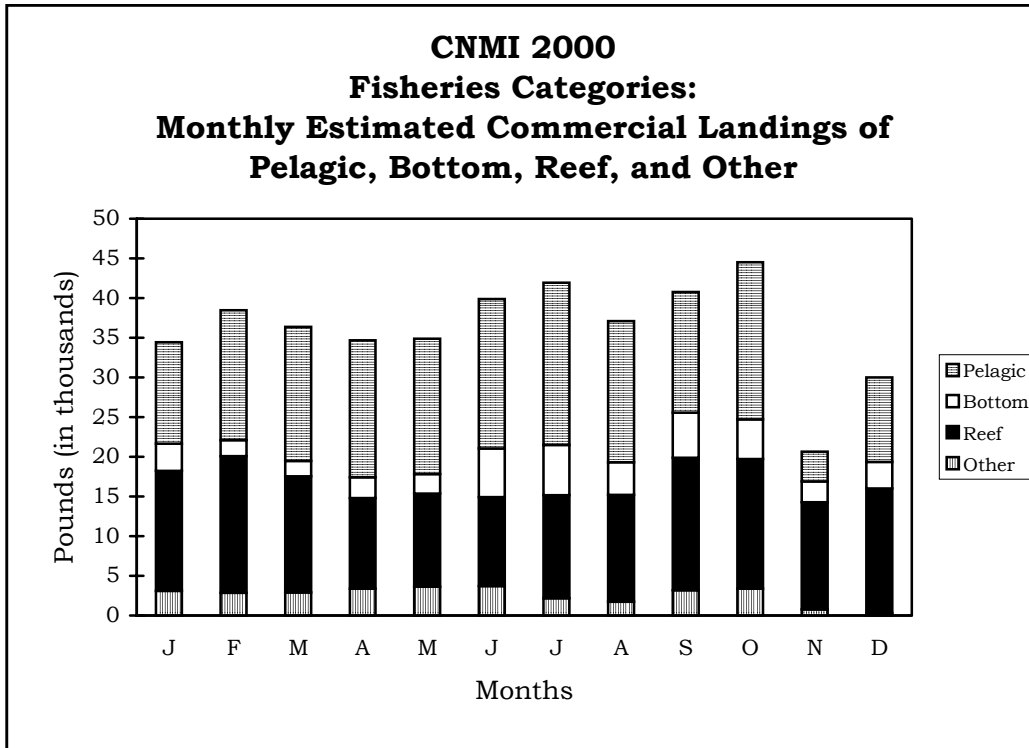


Figure III.1.2

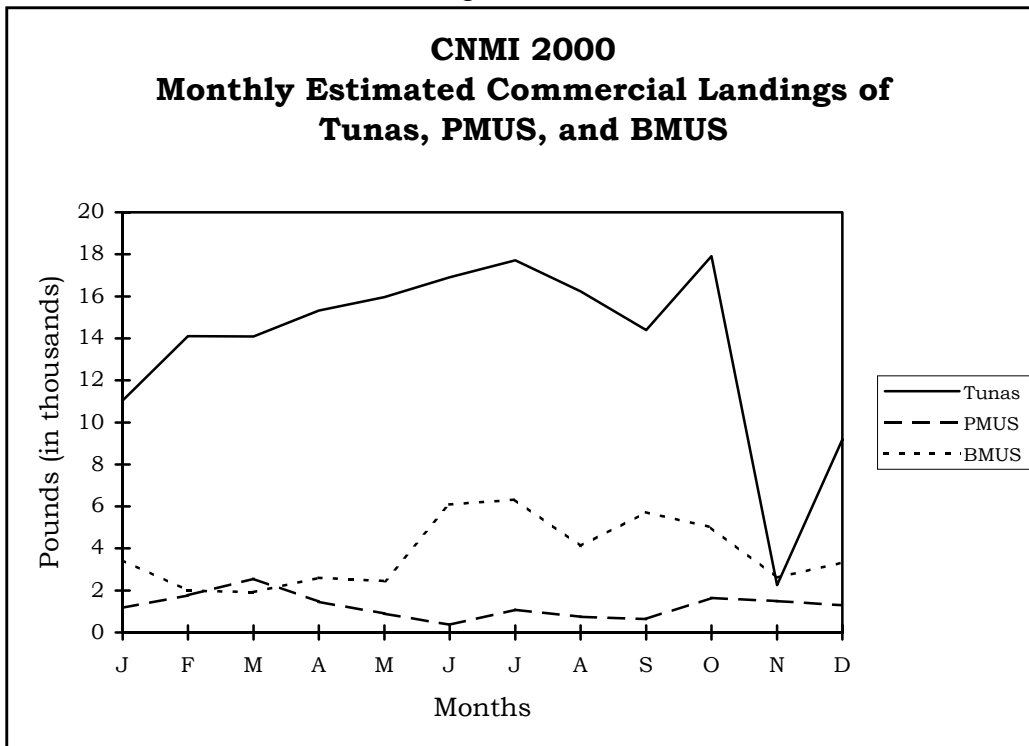


Figure III.1.3

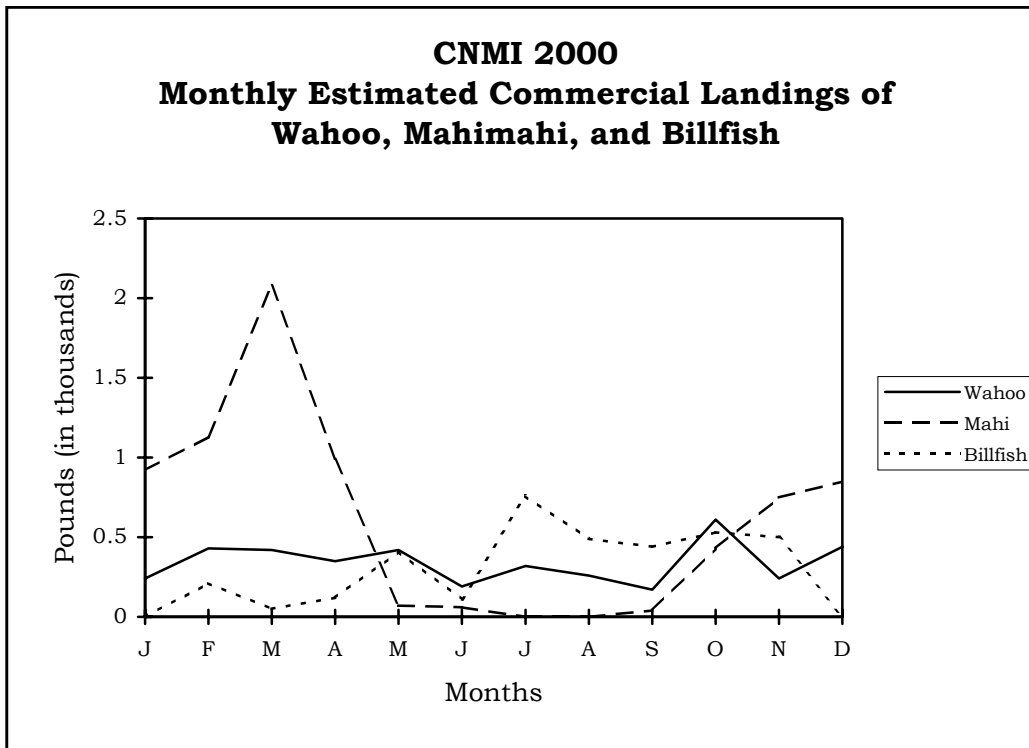


Figure III.1.4

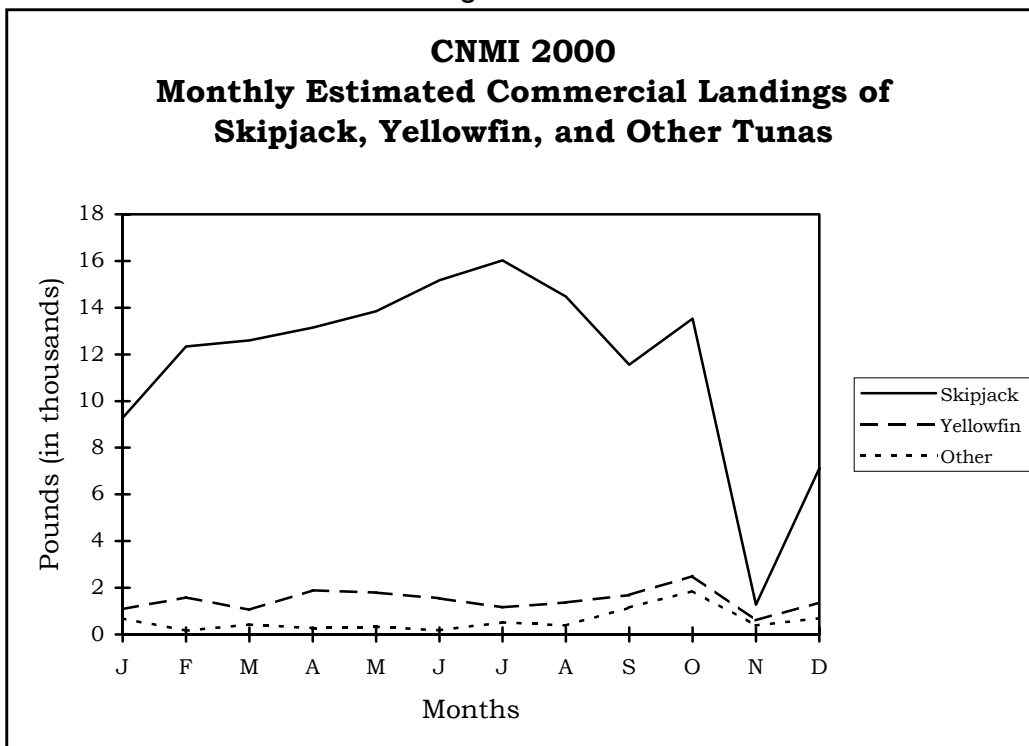


Figure III.1.5

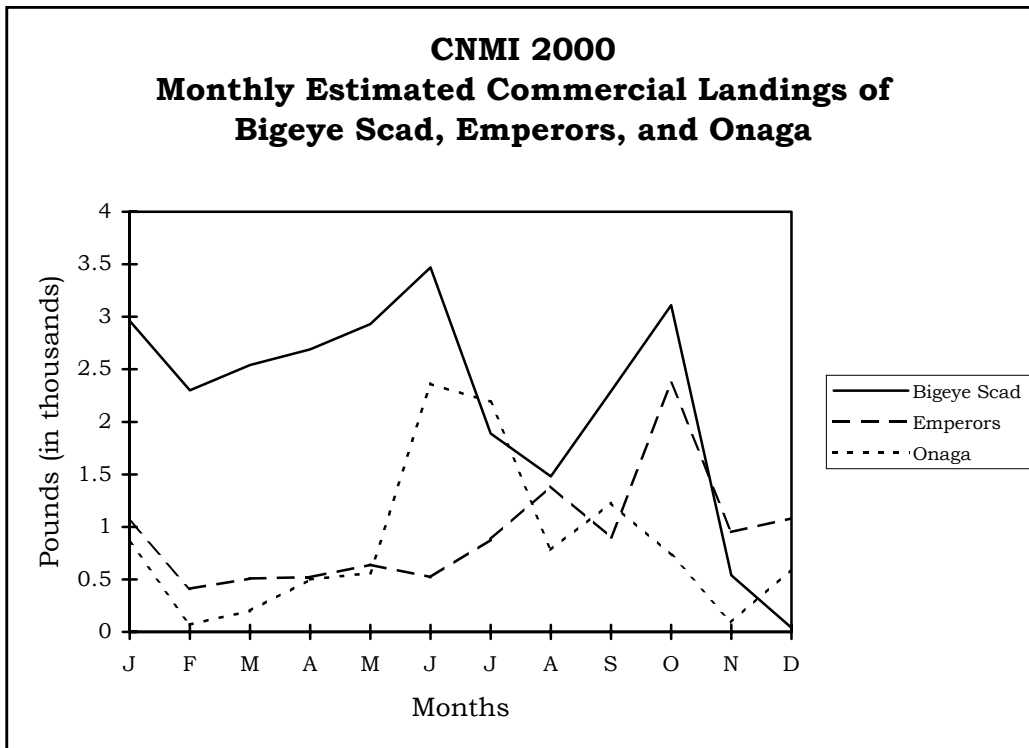


Figure III.2.1

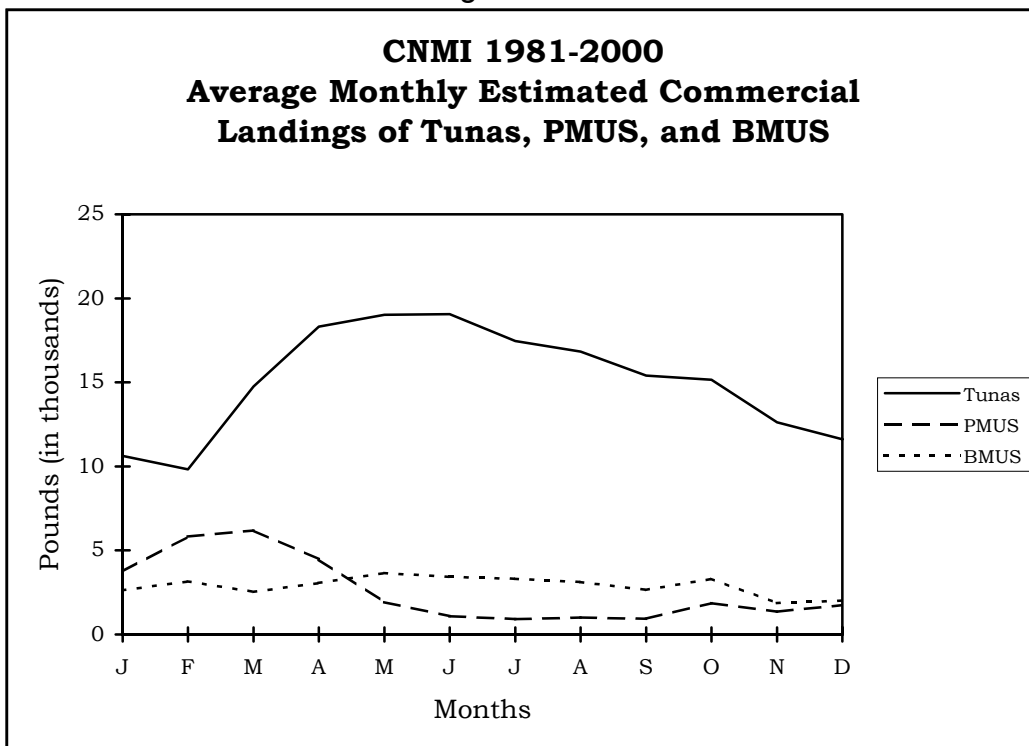


Figure III.2.2

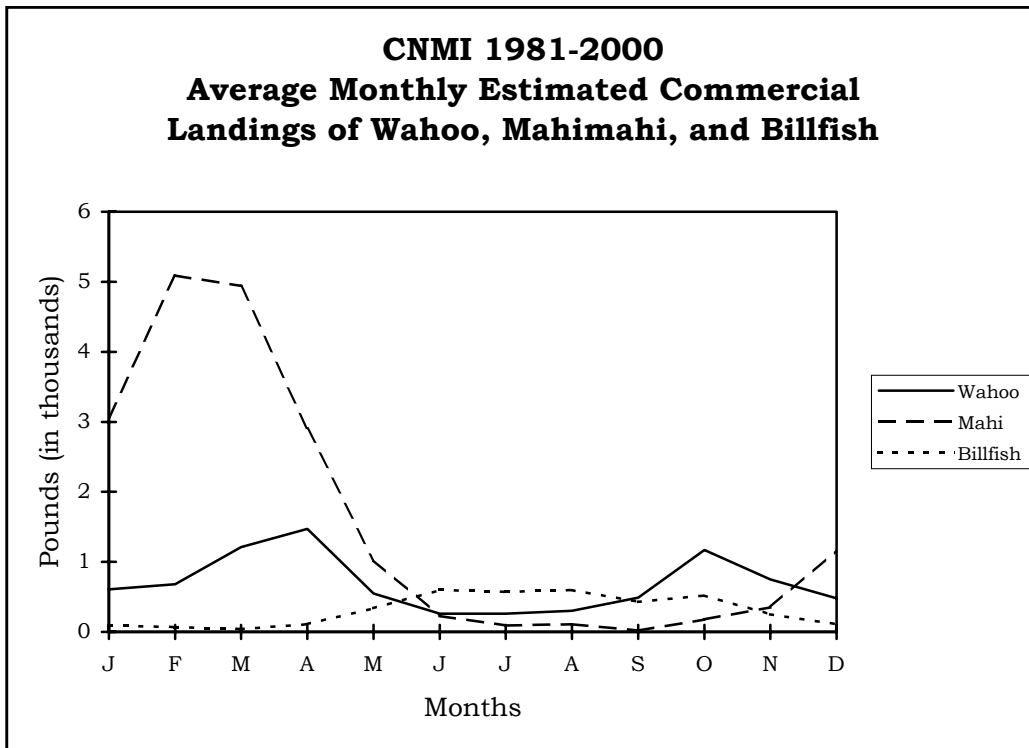


Figure III.2.3

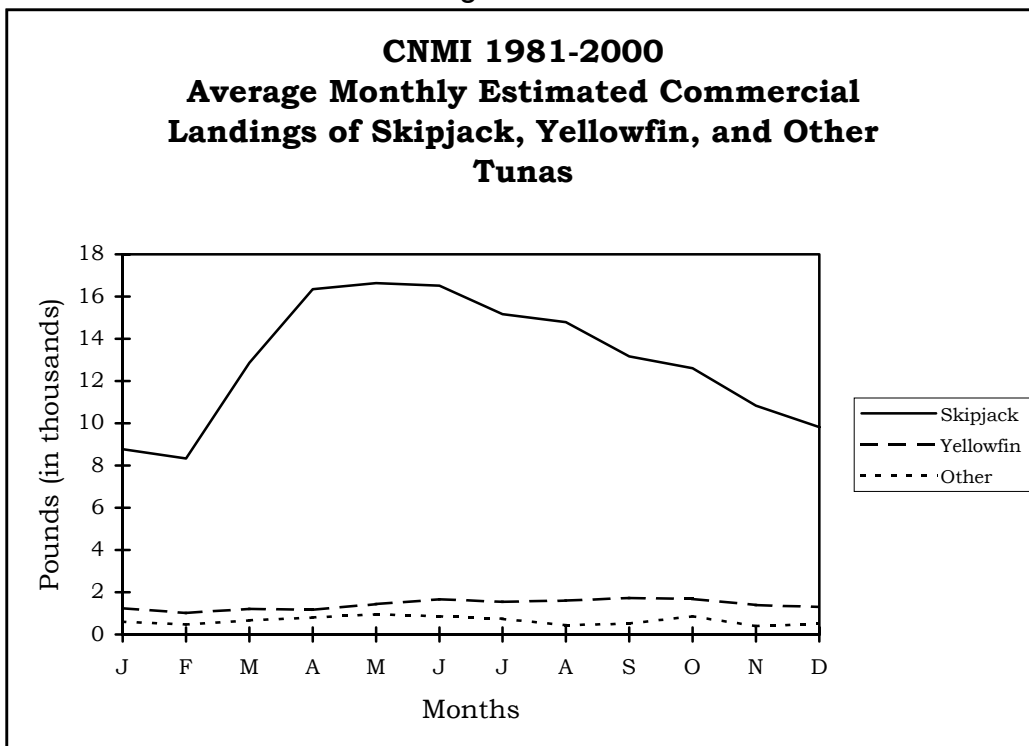


Figure III.2.4

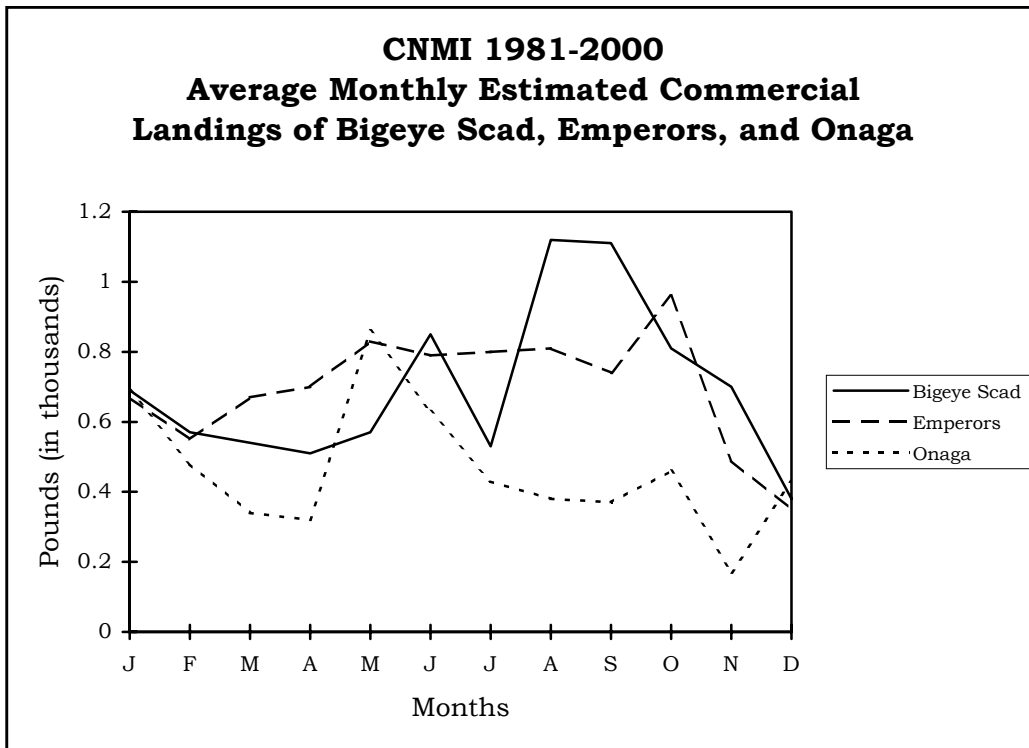


Figure III.2.5

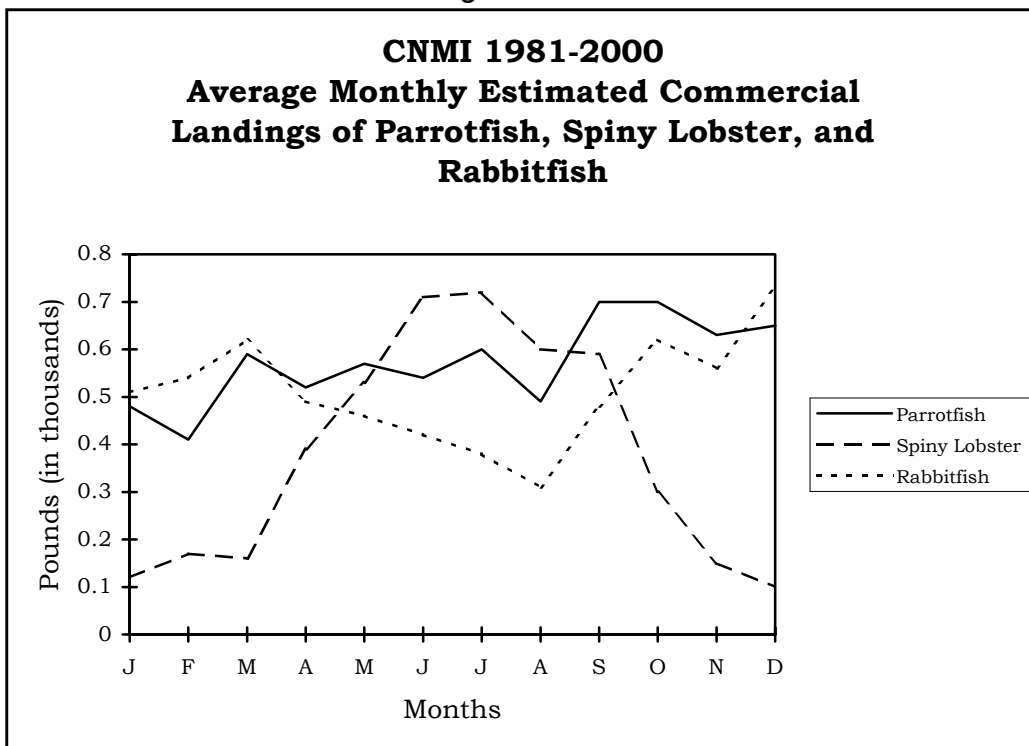


Figure III.3.1

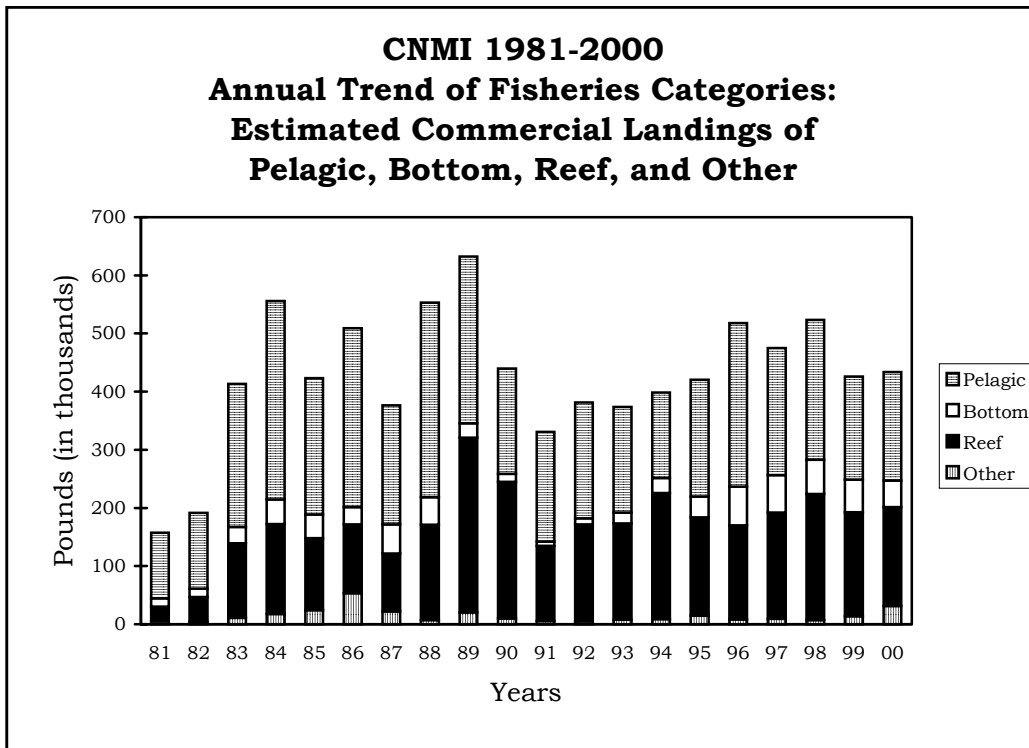


Figure III.3.2

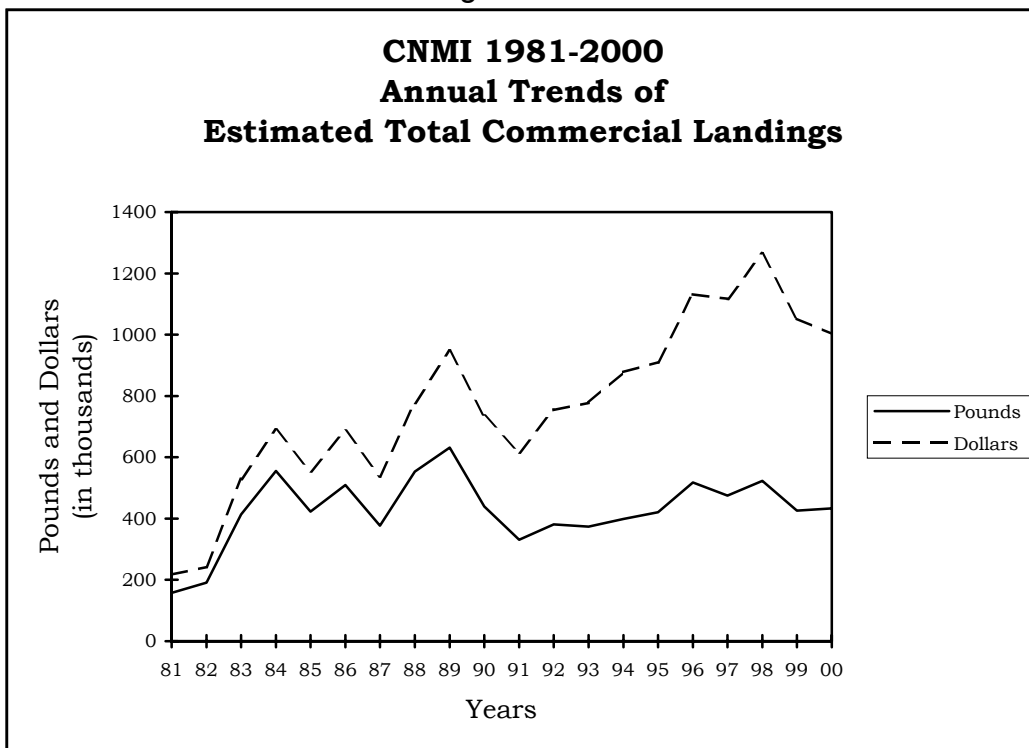


Figure III.3.3

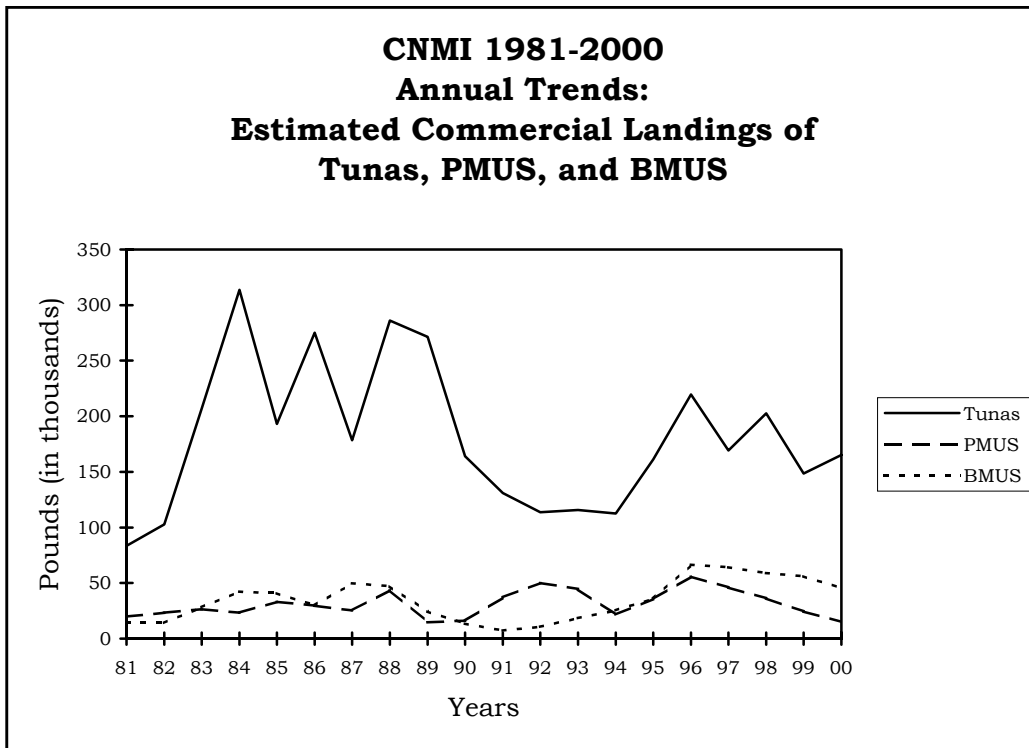


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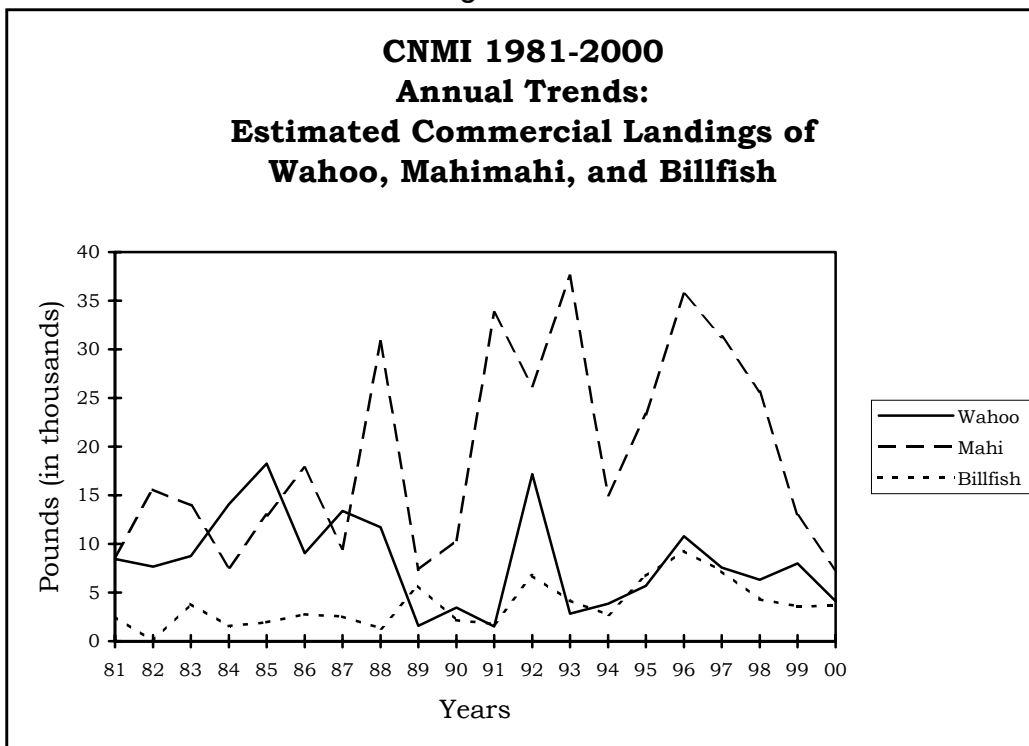


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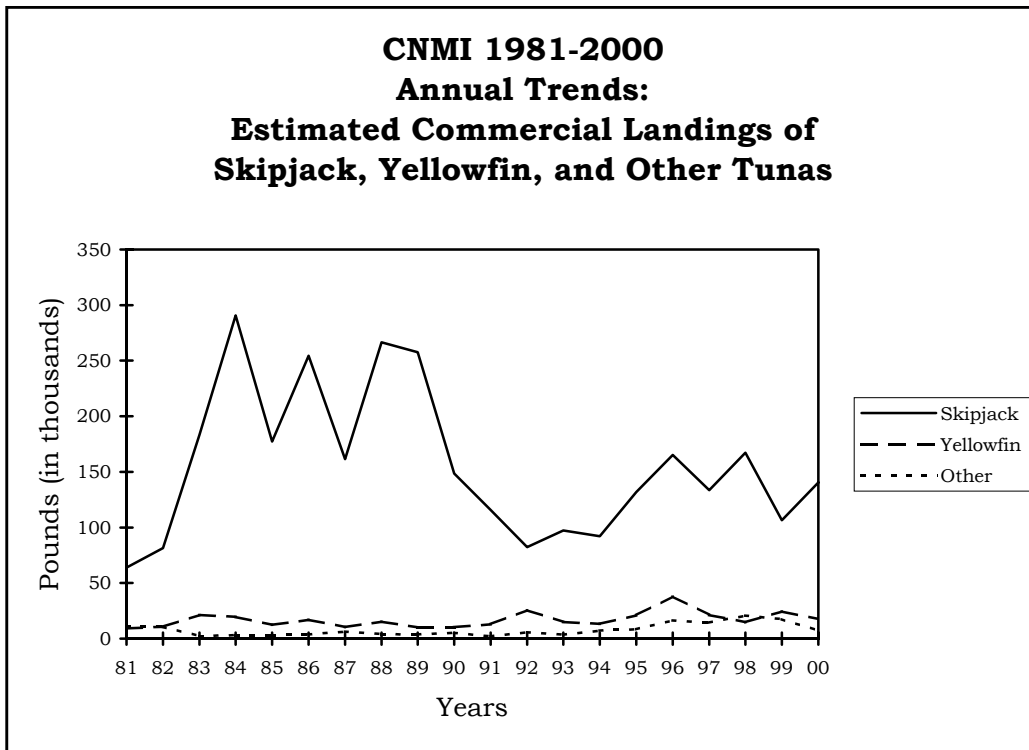


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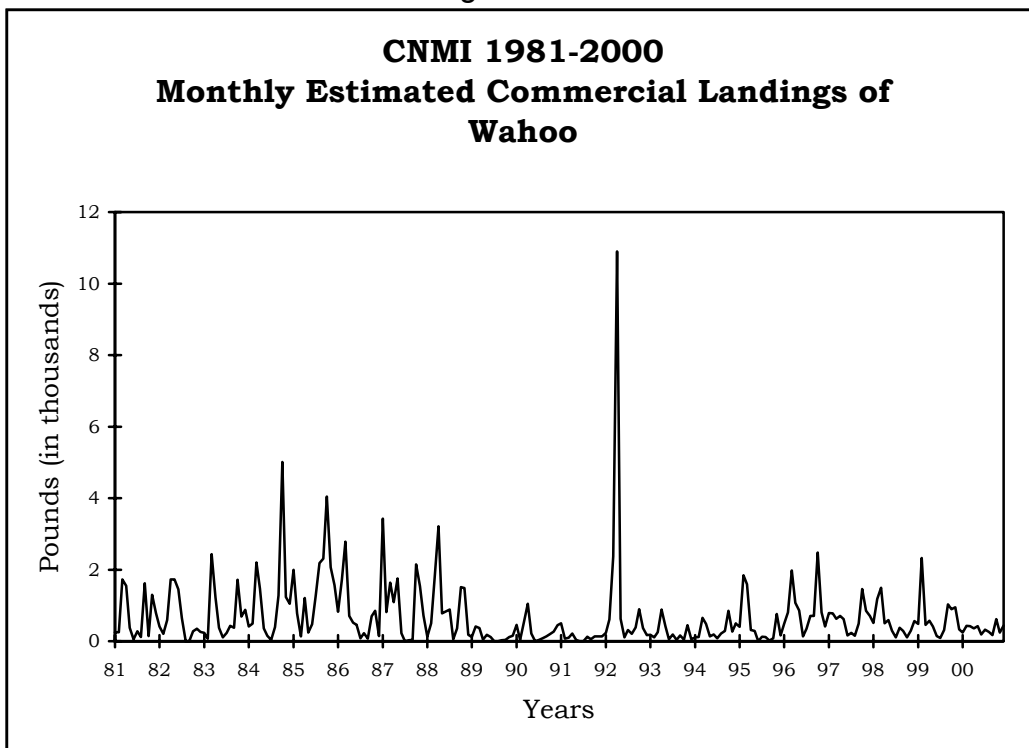


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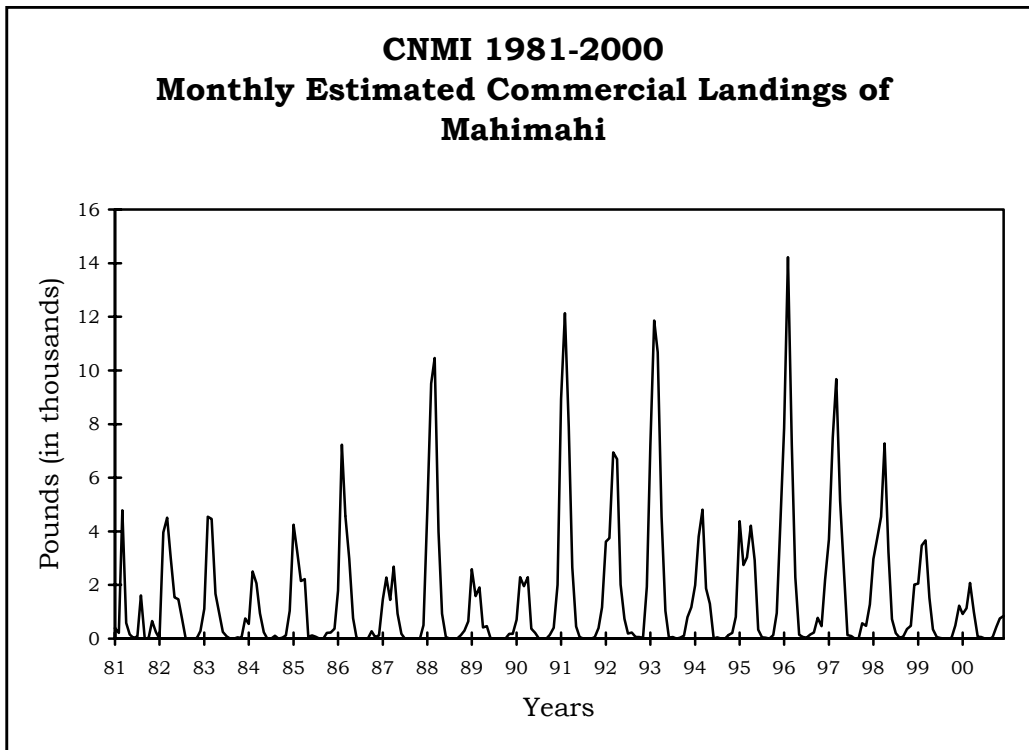


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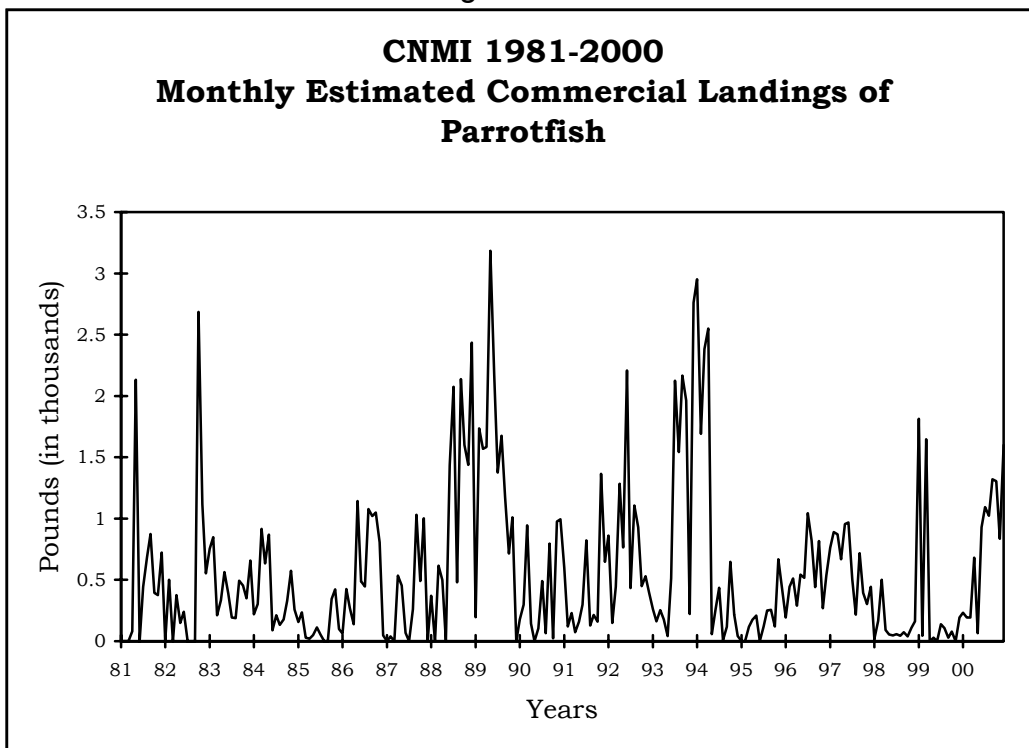


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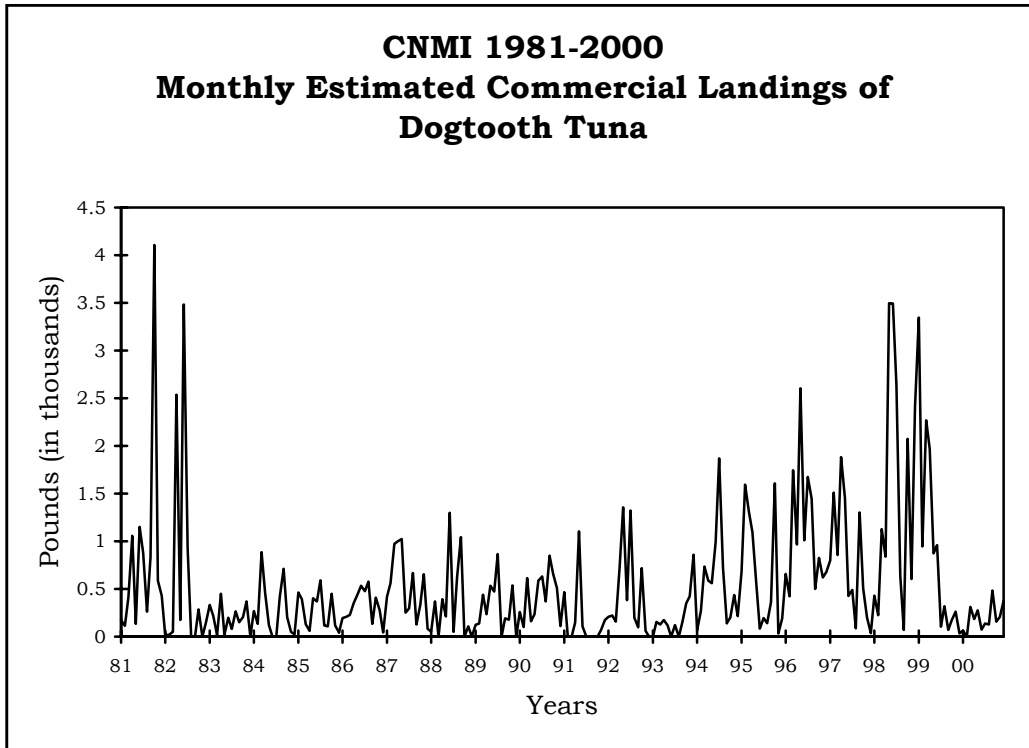


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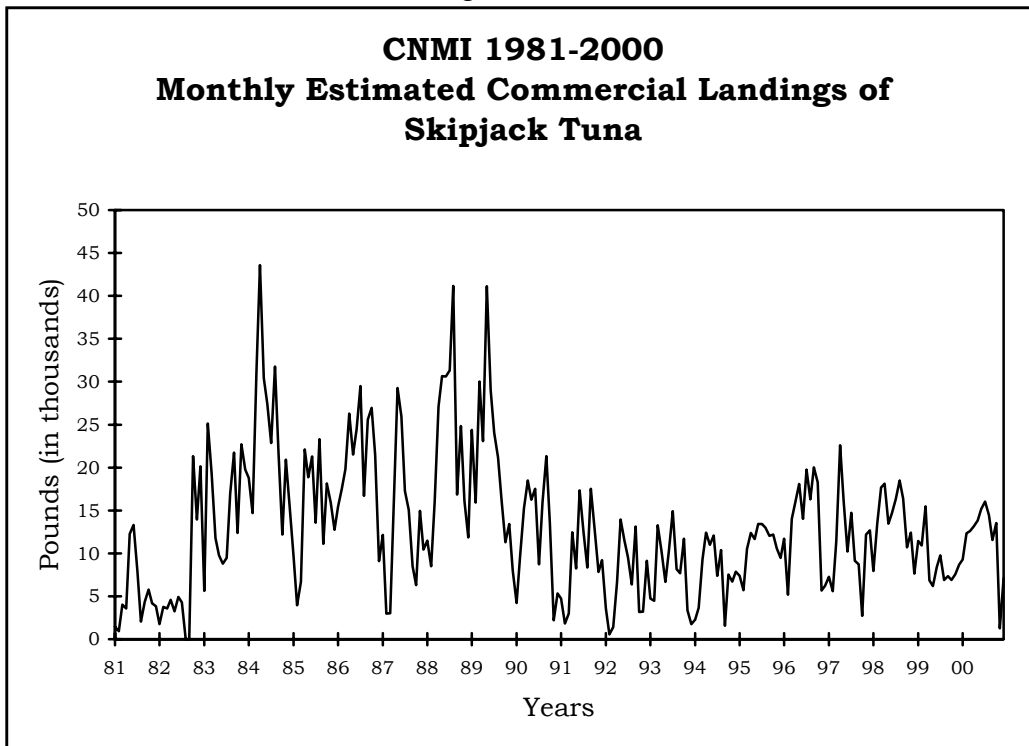


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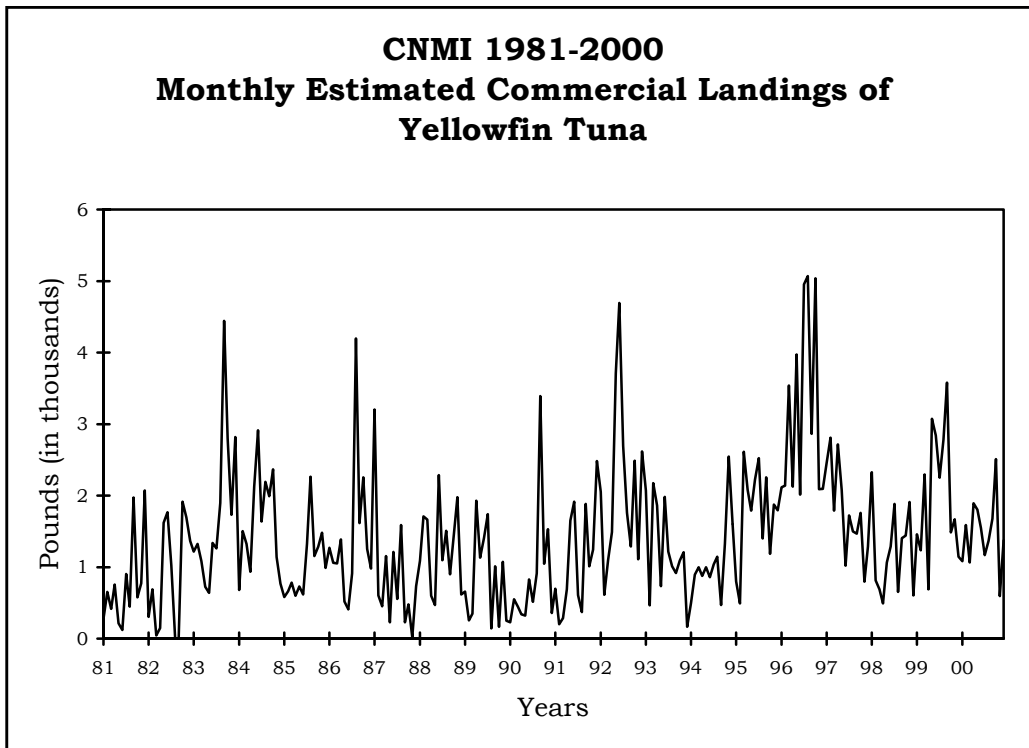


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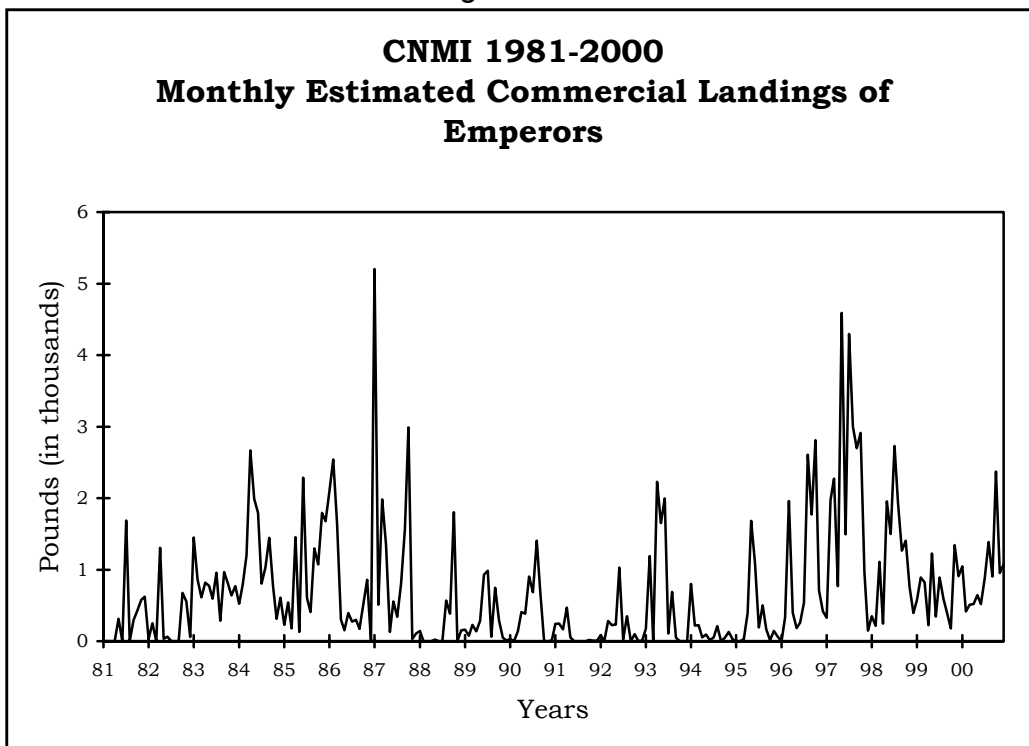


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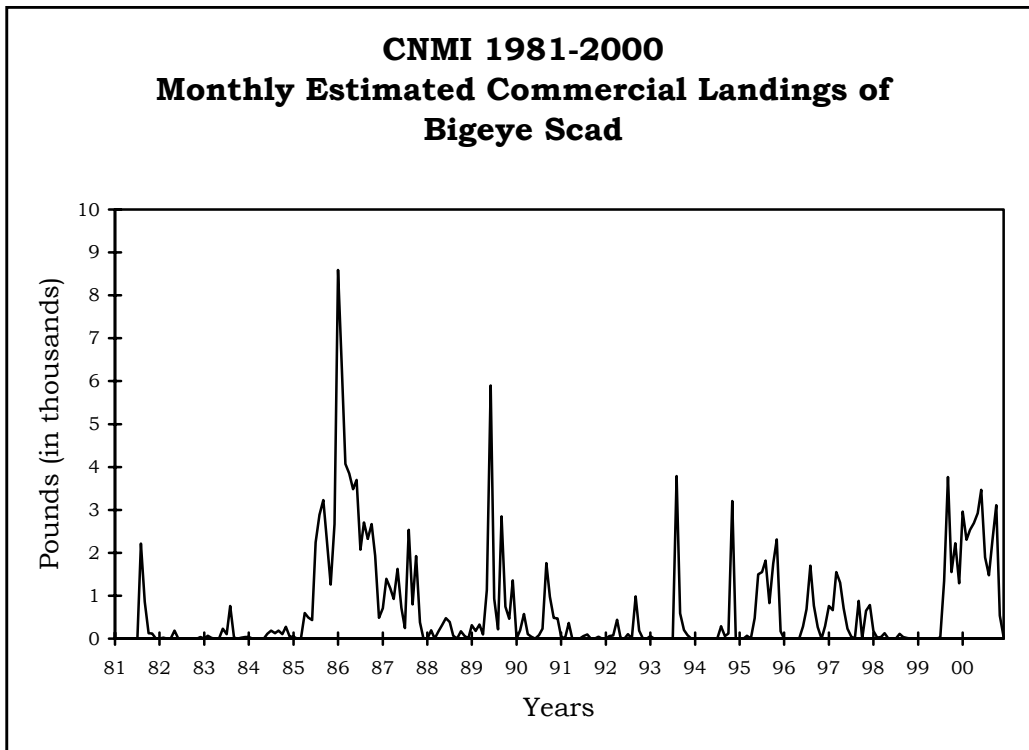


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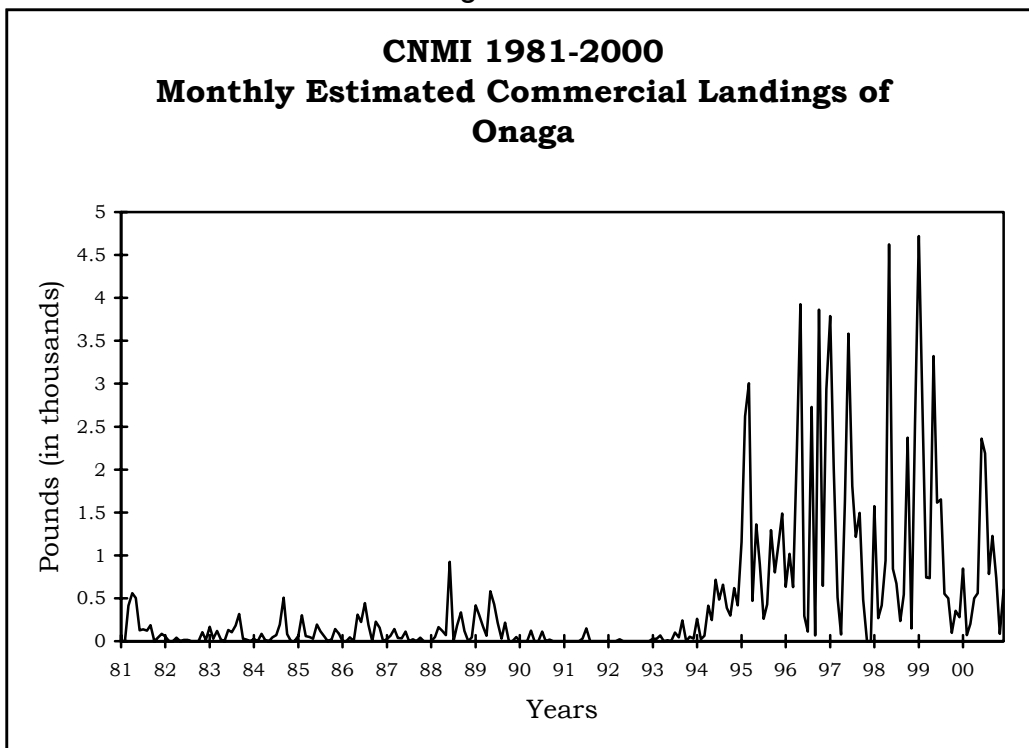


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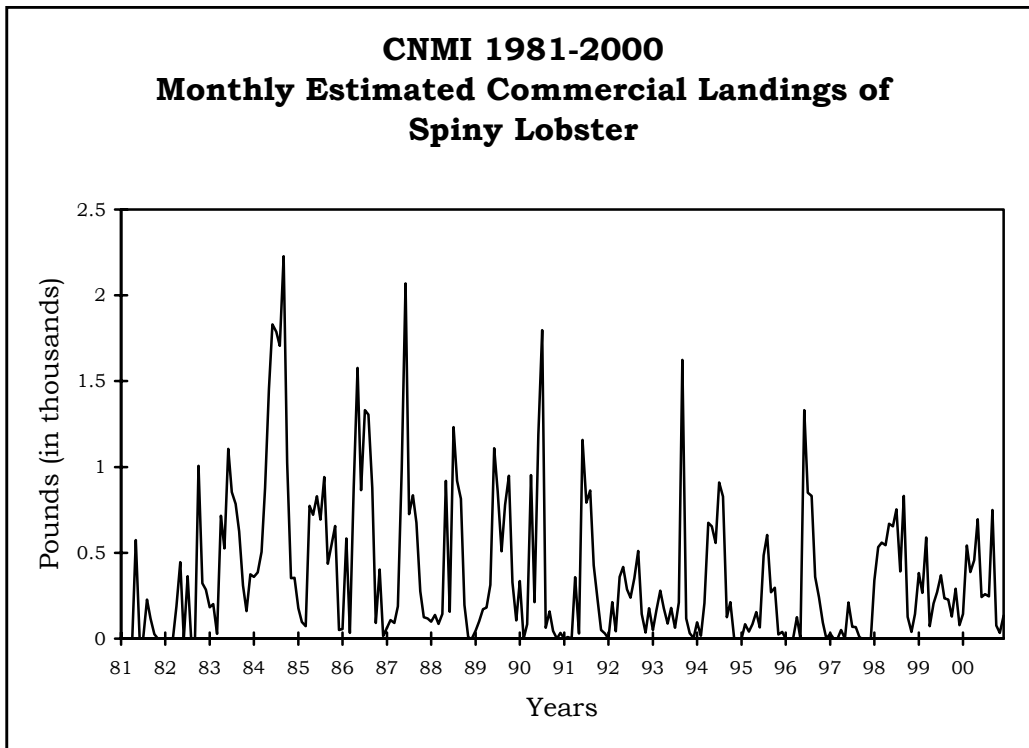
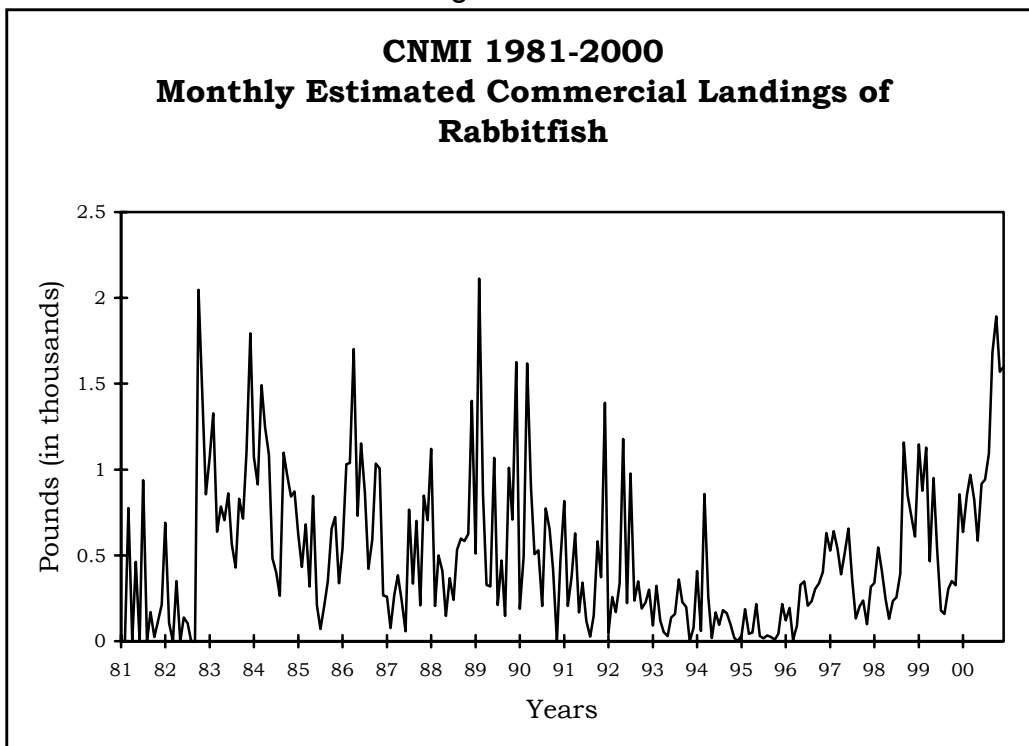


Figure III.4.11



GUAM 2000 FISHERY STATISTICS

Compiled by
Guam Division of Aquatic and Wildlife Resources
and the
Western Pacific Fishery Information Network

November 2002

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GUAM 2000 FISHERY STATISTICS

INTRODUCTION

The Territory of Guam is the southernmost, largest, and most populous island (about 151,716) in the Mariana Archipelago.

Location: 13.4°N latitude, 144.4°E longitude

Population: 151,716

Economy: tourism and US military



Guam

source: <<http://www.cia.gov/cia/publications/factbook/gq.html>>;
The World Factbook 1999

Fishing activities on Guam are divided into two basic categories: offshore and inshore fishing. Offshore fishing typically involves small boats (12 to 48 feet) going on 1 to 2-day trolling and bottomfishing trips. They usually originate from one of the three principal harbors located on the west coast and southern tip of the island. Inshore fishing is usually conducted without the use of a boat and consists mostly of nearshore casting, netting, and spearfishing. In recent years the sportfishing charter boat industry has grown significantly, and it contributes considerably to the commercial landings on Guam since much of its catch is sold.

In 1982, WPacFIN began working with staff of the Division of Aquatic and Wildlife Resources (DAWR) and with local fish dealers to obtain information on commercial landings through voluntary use of “trip ticket” invoices provided by WPacFIN. The tables and graphs in this section are based on data that are summarized from receipts submitted by all participating dealers on Guam, and then adjusted to create the estimated total commercial landings based on an estimated annual percent coverage factor.

COMMERCIAL LANDINGS DATA COLLECTION SYSTEM

There are three sources of fish in Guam’s commercial market: 1) full-time commercial fishermen; 2) part-time commercial fishermen; and 3) subsistence or

IV.2

recreational “expense” fishermen who frequently sell portions of their catch to help defray costs. Licenses are not required to sell fish in Guam, nor are there any reporting requirements for those selling fish.

In July 1979 the Guam Fishermen's Coop was established in Agana via government funding, and it subsequently became the central distribution center for fresh local fish. Prior to 1979 there was no central place to sell fish, and fishermen had to develop their own markets and peddle fish after each trip.

In 1982, WPacFIN began working with the Coop to improve their invoicing system and to obtain data on all fish purchases. A cooperative system was established whereby the Coop would use forms and coding schemes designed by WPacFIN and would supply copies of all invoices to WPacFIN for computer data entry. In return, WPacFIN would provide the Coop with document quality control and computer generated summary statistics. All purchase-data back to July 1979 were also coded and computerized. As time progressed other fish markets began to operate, and DAWR and WPacFIN staff worked with them to obtain their data via the voluntary receipt book program as well.

Although a proposed law has been introduced several times that would require reporting by dealers and possibly commercial fishermen, it has never made it very far through the legislative process and the commercial landings data collection system remains voluntary.

Data collected on commercial receipts forms include:

- Date
- Number of fishermen
- Area fished
- Number of pieces caught
- Price per pound
- Fisherman code
- Hours fished
- Species caught
- Pounds caught

COMMERCIAL LANDINGS DATA PROCESSING SYSTEM

In earlier years data processing was done at the central WPacFIN office in Honolulu, but beginning in 1994 DAWR staff took over this task using a computer and software provided by WPacFIN. The processing system for the commercial landings data collected from the fish dealers is fairly straightforward. Dealers complete a purchase form every time they purchase fish from a fisherman. On this form, catches are divided into categories for weighing by species or species group (where practicable, number of pieces is also recorded). Once all the edits, adjustments, verifications, and corrections are made, summary reports are generated. Numerous standard reports are

available, but only the monthly and annual landings by species are provided in this document.

COMMERCIAL LANDINGS DATA REPORTING SYSTEM

After completing all editing, adjusting, and quality control activities for the commercial landings data, monthly and annual summary reports by species are generated. Each table contains information on the pounds, value and the average price per pound for each species or species group. Each monthly report contains a subtotal for the sum of all species combined for that month. Annual reports contain the estimated total landings for each species and the estimated total recorded landings for all species for the calendar year. Included with the estimated commercial landings summary reports are graphs of some of the important statistics.

Please note that, starting with this volume, commercial landings data have been adjusted to reflect total coverage and are referenced as “Estimated Commercial Landings” in the charts and tables. Also, some of the charts in this volume are new or modified from earlier volumes.

Modified

IV.2.2 Marlin added

New

IV.2.3 Avg. Monthly Landings of Onaga and Bigeye Scad
 IV.3.6 Annual Trends: Estimated Commercial Landings of Onaga and Bigeye Scad
 IV.4.6 Monthly Landings of Onaga
 IV.4.7 Monthly Landings of Bigeye Scad
 IV.4.8 Monthly Landings of Dogtooth Tuna

The following groupings of species, species categories, and abbreviations are used in the tables and graphs for Guam's commercial landings:

I. Pelagic Management Unit Species (PMUS)

Although the Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to include tunas in the Pacific PMUS (PPMUS), this report series will continue to specify tunas as a separate category from the PPMUS. The PMUS category in this report includes:

Mahimahi (dolphin)
 Marlin (probably all blue but possibly striped or black)

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I. Pelagic Management Unit Species (PMUS) (cont.)

Spearfish
Sailfish
Wahoo
Sharks

II. Bottomfish Management Unit Species (BMUS)

Jacks (unclassified but excluding bigeye scad)
Amberjack
Bottom fish (unclassified)
Ehu (red snapper)
Gindai (flower snapper)
Grouper
Kalekale (pink snapper)
Lehi (silverjaw snapper)
Onaga (red or longtail snapper)
Opakapaka (pink snapper)
Uku (gray snapper)
Emperor (mafute)

III. Billfish

Marlin (probably all blue but possibly striped or black)
Spearfish
Sailfish

IV. Tunas

Tunas (unclassified)
Skipjack tuna
Yellowfin tuna
Dogtooth or white tuna
Kawakawa

V. Other Tuna

All the above tunas excluding skipjack and yellowfin tunas.

VI. Fisheries Categories

A. Pelagic Species

All PMUS and tuna species plus the following:

Troll fish (unclassified)

Barracuda

All PMUS and tuna species plus the following: (cont.)

Rainbow runner

B. Bottom Fish

Same as the BMUS

C. Reef Fish

Reef fish (unclassified)

Giant wrasse

Rabbitfish

Rudderfish

Squirrelfish

Parrotfish

Snapper

Surgeonfish

Unicornfish

Goatfish

D. Other

Miscellaneous (unclassified)

Bigeye scad

Mullet

Eels

Milkfish

Invertebrates (unclassified)

Crabs (unclassified)

Coconut crab

Lobster

Shrimp

Octopus

Squid

Seaweeds

Imported

INTERPRETATION OF STATISTICS

The user is reminded again to pay heed to the precautions and assumptions identified earlier in this document when making interpretations of or inferences from data reported in the tables and graphs. Remember also that the commercial landings summaries are adjusted numbers based on samples of fishing activities.

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Table IV.1.1

Guam 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Miscellaneous	128	\$253	\$1.97
Bigeye Scad (Atulai)	8,305	\$21,424	\$2.58
Black Jack	206	\$530	\$2.57
Jacks	2,088	\$5,168	\$2.47
Mullet	40	\$107	\$2.68
Milkfish	21	\$64	\$3.00
Bottom Fish	1,390	\$4,119	\$2.96
Deep Bottom	162	\$602	\$3.71
Ehu (Red Snapper)	578	\$2,305	\$3.99
Gindai (Flower Snap)	540	\$2,157	\$4.00
Grouper	1,776	\$4,290	\$2.41
Kalikali (Pink Snap)	798	\$2,707	\$3.39
Lehi (Silverjaw)	1,229	\$4,918	\$4.00
Onaga (Red Snapper)	8,208	\$35,198	\$4.29
Opakapaka (Pink Snp)	625	\$2,497	\$4.00
Uku (Gray Snapper)	609	\$1,988	\$3.27
Amberjack	741	\$2,000	\$2.70
Reef Fish	202,057	\$600,793	\$2.97
Wrasse	1,090	\$2,737	\$2.51
Rabbitfish	951	\$2,935	\$3.09
Emperor (Mafute)	2,484	\$7,705	\$3.10
Parrotfish	368	\$926	\$2.51
Snapper	489	\$1,289	\$2.63
Goatfish	76	\$228	\$3.00
Troll Fish	32	\$49	\$1.50
Barracuda	3,851	\$8,021	\$2.08
Dolphin (Mahimahi)	79,732	\$174,547	\$2.19
Marlin	64,474	\$74,636	\$1.16
Spearfish	29	\$44	\$1.50
Sailfish	1,440	\$1,919	\$1.33
Rainbow Runner	3,100	\$6,392	\$2.06
Monchong	416	\$806	\$1.94
Wahoo	44,669	\$97,360	\$2.18
Tunas	3	\$9	\$3.00
Skipjack Tuna	128,407	\$163,516	\$1.27
Dogtooth Tuna	3,500	\$4,861	\$1.39
Yellowfin Tuna	37,465	\$71,178	\$1.90
Kawakawa	24	\$32	\$1.37
Invertebrates	54	\$135	\$2.50
Crabs (Misc)	18	\$51	\$2.87
Lobster	3,371	\$13,062	\$3.87

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Table IV.1.1 (cont.)

Species	Pounds	Value	Price/Lb.
Octopus	2,968	\$8,522	\$2.87
Shrimp\prawn(Salt water)	27	\$175	\$6.46
** TOTAL **	608,541	\$1,332,253	\$2.19

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Table IV.1.2

Guam January 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	208	\$557	\$2.67
Jacks	74	\$173	\$2.33
Mullet	40	\$107	\$2.68
Bottom Fish	226	\$622	\$2.75
Deep Bottom	96	\$345	\$3.59
Ehu (Red Snapper)	27	\$107	\$4.00
Gindai (Flower Snap)	66	\$264	\$4.00
Grouper	252	\$631	\$2.50
Kalikali (Pink Snap)	85	\$289	\$3.40
Lehi (Silverjaw)	215	\$861	\$4.00
Onaga (Red Snapper)	692	\$3,159	\$4.57
Opakapaka (Pink Snp)	75	\$299	\$4.00
Uku (Gray Snapper)	19	\$58	\$3.00
Amberjack	75	\$216	\$2.89
Reef Fish	15,176	\$45,446	\$2.99
Wrasse	216	\$541	\$2.50
Emperor (Mafute)	3	\$10	\$3.00
Barracuda	401	\$759	\$1.89
Dolphin (Mahimahi)	12,533	\$27,366	\$2.18
Marlin	1,056	\$1,464	\$1.39
Sailfish	60	\$90	\$1.50
Rainbow Runner	260	\$574	\$2.21
Monchong	42	\$85	\$2.00
Wahoo	5,227	\$12,357	\$2.36
Skipjack Tuna	6,755	\$9,668	\$1.43
Dogtooth Tuna	304	\$421	\$1.39
Yellowfin Tuna	3,387	\$6,222	\$1.84
Lobster	161	\$624	\$3.89
Octopus	241	\$696	\$2.89
** TOTAL **	47,973	\$114,012	\$2.38

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Table IV.1.3

Guam February 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	548	\$1,508	\$2.75
Jacks	132	\$342	\$2.58
Bottom Fish	42	\$127	\$3.00
Deep Bottom	52	\$207	\$4.00
Ehu (Red Snapper)	39	\$155	\$3.97
Gindai (Flower Snap)	65	\$261	\$4.00
Grouper	10	\$30	\$3.00
Kalikali (Pink Snap)	79	\$276	\$3.50
Lehi (Silverjaw)	72	\$287	\$4.00
Onaga (Red Snapper)	1,502	\$6,050	\$4.03
Opakapaka (Pink Snp)	40	\$161	\$3.98
Uku (Gray Snapper)	30	\$66	\$2.15
Amberjack	29	\$86	\$3.00
Reef Fish	15,453	\$46,230	\$2.99
Wrasse	73	\$182	\$2.50
Rabbitfish	44	\$131	\$3.00
Emperor (Mafute)	214	\$641	\$3.00
Snapper	1	\$2	\$2.00
Barracuda	438	\$941	\$2.15
Dolphin (Mahimahi)	17,123	\$34,203	\$2.00
Marlin	1,154	\$1,364	\$1.18
Sailfish	121	\$166	\$1.37
Rainbow Runner	252	\$546	\$2.16
Monchong	169	\$339	\$2.00
Wahoo	4,942	\$11,468	\$2.32
Tunas	3	\$9	\$3.00
Skipjack Tuna	9,397	\$12,417	\$1.32
Dogtooth Tuna	895	\$1,246	\$1.39
Yellowfin Tuna	2,226	\$4,287	\$1.93
Lobster	99	\$379	\$3.83
Octopus	225	\$645	\$2.87
** TOTAL **	55,470	\$124,750	\$2.25

IV.10

Table IV.1.4

Guam March 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Jacks	27	\$70	\$2.61
Bottom Fish	54	\$162	\$3.00
Ehu (Red Snapper)	2	\$9	\$4.00
Gindai (Flower Snap)	15	\$59	\$3.82
Kalikali (Pink Snap)	31	\$109	\$3.50
Lehi (Silverjaw)	196	\$784	\$4.00
Onaga (Red Snapper)	351	\$1,468	\$4.18
Opakapaka (Pink Snp)	164	\$656	\$4.00
Uku (Gray Snapper)	7	\$16	\$2.25
Amberjack	14	\$30	\$2.25
Reef Fish	19,717	\$59,097	\$3.00
Emperor (Mafute)	10	\$29	\$3.00
Parrotfish	158	\$355	\$2.25
Barracuda	130	\$247	\$1.90
Dolphin (Mahimahi)	15,220	\$31,581	\$2.08
Marlin	1,376	\$1,599	\$1.16
Sailfish	181	\$244	\$1.35
Rainbow Runner	68	\$134	\$1.98
Wahoo	2,101	\$5,084	\$2.42
Skipjack Tuna	9,908	\$13,100	\$1.32
Dogtooth Tuna	98	\$139	\$1.43
Yellowfin Tuna	1,789	\$2,549	\$1.42
Crabs (Misc)	3	\$11	\$3.75
Lobster	174	\$673	\$3.87
Octopus	32	\$98	\$3.11
Shrimp\prawn(Swater)	9	\$61	\$6.50
** TOTAL **	51,834	\$118,364	\$2.28

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Table IV.1.5

Guam April 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	281	\$888	\$3.16
Jacks	124	\$308	\$2.49
Bottom Fish	385	\$1,154	\$3.00
Deep Bottom	6	\$20	\$3.50
Ehu (Red Snapper)	73	\$289	\$3.97
Gindai (Flower Snap)	30	\$118	\$4.00
Grouper	92	\$216	\$2.35
Kalikali (Pink Snap)	13	\$44	\$3.50
Lehi (Silverjaw)	179	\$715	\$4.00
Onaga (Red Snapper)	1,345	\$6,206	\$4.61
Opakapaka (Pink Snp)	26	\$104	\$4.00
Uku (Gray Snapper)	28	\$76	\$2.70
Amberjack	37	\$91	\$2.43
Reef Fish	17,686	\$52,385	\$2.96
Wrasse	71	\$165	\$2.33
Rabbitfish	907	\$2,804	\$3.09
Emperor (Mafute)	8	\$23	\$3.00
Parrotfish	121	\$303	\$2.50
Troll Fish	32	\$49	\$1.50
Barracuda	423	\$769	\$1.82
Dolphin (Mahimahi)	4,714	\$10,402	\$2.21
Marlin	2,942	\$3,610	\$1.23
Sailfish	299	\$374	\$1.25
Rainbow Runner	253	\$521	\$2.06
Wahoo	2,097	\$5,291	\$2.52
Skipjack Tuna	11,001	\$14,245	\$1.29
Dogtooth Tuna	266	\$370	\$1.39
Yellowfin Tuna	2,731	\$4,908	\$1.80
Lobster	337	\$1,307	\$3.88
Octopus	41	\$119	\$2.88
** TOTAL **	46,547	\$107,874	\$2.32

IV.12

Table IV.1.6

Guam May 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Miscellaneous	6	\$12	\$2.00
Bigeye Scad (Atulai)	1,499	\$4,488	\$2.99
Jacks	372	\$874	\$2.35
Bottom Fish	130	\$395	\$3.04
Deep Bottom	4	\$12	\$3.50
Ehu (Red Snapper)	36	\$142	\$3.96
Gindai (Flower Snap)	31	\$125	\$4.00
Grouper	4	\$12	\$3.00
Kalikali (Pink Snap)	6	\$19	\$3.50
Lehi (Silverjaw)	48	\$191	\$4.00
Onaga (Red Snapper)	729	\$3,314	\$4.55
Opakapaka (Pink Snp)	62	\$247	\$4.00
Uku (Gray Snapper)	6	\$16	\$2.75
Amberjack	49	\$135	\$2.79
Reef Fish	20,054	\$60,051	\$2.99
Wrasse	331	\$861	\$2.60
Emperor (Mafute)	29	\$85	\$2.90
Barracuda	713	\$1,515	\$2.13
Dolphin (Mahimahi)	151	\$339	\$2.25
Marlin	2,642	\$3,079	\$1.17
Sailfish	295	\$386	\$1.31
Rainbow Runner	504	\$909	\$1.81
Monchong	146	\$292	\$2.00
Wahoo	612	\$1,593	\$2.60
Skipjack Tuna	13,289	\$16,837	\$1.27
Dogtooth Tuna	272	\$350	\$1.29
Yellowfin Tuna	3,132	\$6,045	\$1.93
Kawakawa	8	\$11	\$1.50
Crabs (Misc)	12	\$31	\$2.51
Lobster	695	\$2,690	\$3.87
Octopus	191	\$548	\$2.86
** TOTAL **	46,052	\$105,605	\$2.29

IV.13

Table IV.1.7

Guam June 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	157	\$477	\$3.04
Black Jack	7	\$19	\$2.75
Jacks	390	\$951	\$2.44
Bottom Fish	37	\$110	\$3.00
Ehu (Red Snapper)	71	\$285	\$4.00
Gindai (Flower Snap)	200	\$799	\$4.00
Grouper	42	\$127	\$3.00
Kalikali (Pink Snap)	236	\$811	\$3.44
Lehi (Silverjaw)	93	\$372	\$4.00
Onaga (Red Snapper)	502	\$2,414	\$4.81
Opakapaka (Pink Snp)	14	\$56	\$4.00
Uku (Gray Snapper)	65	\$151	\$2.34
Amberjack	91	\$214	\$2.35
Reef Fish	16,629	\$49,798	\$2.99
Wrasse	140	\$350	\$2.50
Emperor (Mafute)	1	\$3	\$2.75
Barracuda	252	\$502	\$1.99
Marlin	6,754	\$8,125	\$1.20
Spearfish	29	\$44	\$1.50
Sailfish	20	\$25	\$1.25
Rainbow Runner	313	\$684	\$2.18
Wahoo	355	\$960	\$2.71
Skipjack Tuna	17,243	\$21,121	\$1.22
Dogtooth Tuna	236	\$348	\$1.48
Yellowfin Tuna	4,658	\$8,689	\$1.87
Kawakawa	9	\$11	\$1.25
Lobster	333	\$1,295	\$3.89
Octopus	270	\$799	\$2.96
** TOTAL **	49,147	\$99,541	\$2.03

IV.14

Table IV.1.8

Guam July 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	68	\$205	\$3.00
Black Jack	76	\$210	\$2.75
Jacks	178	\$447	\$2.51
Bottom Fish	67	\$201	\$3.00
Deep Bottom	5	\$18	\$3.50
Ehu (Red Snapper)	89	\$358	\$4.00
Gindai (Flower Snap)	22	\$87	\$4.00
Grouper	790	\$1,876	\$2.37
Kalikali (Pink Snap)	39	\$136	\$3.50
Lehi (Silverjaw)	38	\$151	\$4.00
Onaga (Red Snapper)	1,443	\$5,786	\$4.01
Opakapaka (Pink Snp)	78	\$311	\$4.00
Uku (Gray Snapper)	94	\$256	\$2.72
Amberjack	40	\$94	\$2.36
Reef Fish	17,763	\$53,221	\$3.00
Wrasse	160	\$395	\$2.47
Emperor (Mafute)	462	\$1,271	\$2.75
Barracuda	246	\$523	\$2.12
Dolphin (Mahimahi)	211	\$361	\$1.71
Marlin	20,466	\$22,934	\$1.12
Sailfish	59	\$74	\$1.25
Rainbow Runner	678	\$1,493	\$2.20
Wahoo	1,292	\$3,323	\$2.57
Skipjack Tuna	24,872	\$31,085	\$1.25
Dogtooth Tuna	441	\$570	\$1.29
Yellowfin Tuna	9,990	\$20,742	\$2.08
Lobster	630	\$2,430	\$3.86
Octopus	295	\$838	\$2.84
Shrimp\prawn(Swater)	16	\$111	\$6.75
** TOTAL **	80,608	\$149,507	\$1.85

IV.15

Table IV.1.9

Guam August 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	2,527	\$6,063	\$2.40
Black Jack	95	\$238	\$2.50
Jacks	249	\$717	\$2.87
Ehu (Red Snapper)	72	\$289	\$4.00
Gindai (Flower Snap)	10	\$39	\$4.00
Grouper	561	\$1,323	\$2.36
Kalikali (Pink Snap)	61	\$199	\$3.28
Lehi (Silverjaw)	2	\$8	\$4.00
Onaga (Red Snapper)	1,302	\$5,209	\$4.00
Opakapaka (Pink Snp)	40	\$160	\$4.00
Uku (Gray Snapper)	45	\$119	\$2.64
Amberjack	173	\$476	\$2.76
Reef Fish	15,825	\$47,383	\$2.99
Wrasse	3	\$10	\$3.00
Emperor (Mafute)	535	\$1,525	\$2.85
Snapper	445	\$1,200	\$2.70
Goatfish	3	\$9	\$3.00
Barracuda	133	\$291	\$2.18
Dolphin (Mahimahi)	26	\$52	\$1.95
Marlin	8,574	\$8,991	\$1.05
Sailfish	56	\$70	\$1.25
Rainbow Runner	379	\$833	\$2.20
Monchong	32	\$64	\$2.00
Wahoo	537	\$1,350	\$2.52
Skipjack Tuna	17,904	\$22,088	\$1.23
Dogtooth Tuna	141	\$188	\$1.34
Yellowfin Tuna	3,083	\$5,898	\$1.91
Lobster	341	\$1,320	\$3.88
Octopus	318	\$890	\$2.80
** TOTAL **	53,472	\$107,004	\$2.00

IV.16

Table IV.1.10

Guam September 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	1,004	\$2,046	\$2.04
Black Jack	28	\$62	\$2.25
Jacks	179	\$478	\$2.67
Bottom Fish	217	\$650	\$3.00
Ehu (Red Snapper)	126	\$506	\$4.00
Gindai (Flower Snap)	81	\$322	\$4.00
Grouper	19	\$56	\$3.00
Kalikali (Pink Snap)	214	\$699	\$3.27
Lehi (Silverjaw)	246	\$986	\$4.00
Onaga (Red Snapper)	183	\$816	\$4.46
Opakapaka (Pink Snp)	122	\$489	\$4.00
Uku (Gray Snapper)	19	\$53	\$2.75
Amberjack	181	\$535	\$2.95
Reef Fish	19,815	\$58,731	\$2.96
Emperor (Mafute)	196	\$557	\$2.84
Parrotfish	89	\$268	\$3.00
Snapper	41	\$82	\$2.00
Barracuda	205	\$413	\$2.02
Dolphin (Mahimahi)	142	\$318	\$2.23
Marlin	5,495	\$6,389	\$1.16
Sailfish	128	\$160	\$1.25
Rainbow Runner	254	\$468	\$1.84
Wahoo	2,022	\$5,050	\$2.50
Skipjack Tuna	8,588	\$10,680	\$1.24
Dogtooth Tuna	314	\$459	\$1.46
Yellowfin Tuna	1,960	\$3,677	\$1.88
Lobster	339	\$1,336	\$3.94
Octopus	334	\$959	\$2.87
** TOTAL **	42,541	\$97,244	\$2.29

IV.17

Table IV.1.11

Guam October 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Miscellaneous	108	\$216	\$2.00
Bigeye Scad (Atulai)	1,274	\$3,226	\$2.53
Jacks	157	\$344	\$2.19
Bottom Fish	232	\$697	\$3.00
Ehu (Red Snapper)	10	\$42	\$4.00
Gindai (Flower Snap)	3	\$13	\$4.00
Kalikali (Pink Snap)	30	\$106	\$3.50
Lehi (Silverjaw)	83	\$333	\$4.00
Onaga (Red Snapper)	32	\$143	\$4.50
Opakapaka (Pink Snp)	3	\$14	\$4.00
Amberjack	44	\$93	\$2.14
Reef Fish	14,847	\$43,303	\$2.92
Barracuda	288	\$589	\$2.05
Dolphin (Mahimahi)	7,399	\$18,094	\$2.45
Marlin	11,824	\$14,193	\$1.20
Sailfish	200	\$303	\$1.51
Rainbow Runner	32	\$57	\$1.77
Wahoo	2,976	\$7,045	\$2.37
Skipjack Tuna	5,375	\$6,802	\$1.27
Dogtooth Tuna	111	\$163	\$1.47
Yellowfin Tuna	2,282	\$3,936	\$1.73
Crabs (Misc)	2	\$9	\$3.75
Lobster	152	\$578	\$3.80
Octopus	304	\$812	\$2.67
Shrimp\prawn(Swater)	1	\$2	\$2.00
** TOTAL **	47,769	\$101,111	\$2.12

IV.18

Table IV.1.12

Guam November 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Miscellaneous	14	\$24	\$1.75
Bigeye Scad (Atulai)	512	\$1,285	\$2.51
Jacks	85	\$178	\$2.09
Milkfish	21	\$64	\$3.00
Ehu (Red Snapper)	19	\$75	\$4.00
Gindai (Flower Snap)	18	\$71	\$4.00
Kalikali (Pink Snap)	5	\$19	\$3.50
Uku (Gray Snapper)	294	\$1,176	\$4.00
Amberjack	9	\$28	\$3.00
Reef Fish	14,163	\$40,971	\$2.89
Emperor (Mafute)	1,005	\$3,499	\$3.48
Snapper	2	\$5	\$2.00
Goatfish	73	\$219	\$3.00
Barracuda	492	\$1,184	\$2.41
Dolphin (Mahimahi)	10,468	\$24,819	\$2.37
Marlin	1,459	\$1,887	\$1.29
Rainbow Runner	14	\$26	\$1.92
Wahoo	12,957	\$25,124	\$1.94
Skipjack Tuna	649	\$1,000	\$1.54
Dogtooth Tuna	255	\$325	\$1.28
Yellowfin Tuna	1,482	\$2,810	\$1.90
Kawakawa	7	\$10	\$1.40
Lobster	80	\$306	\$3.83
Octopus	376	\$1,098	\$2.92
** TOTAL **	44,459	\$106,204	\$2.39

IV.19

Table IV.1.13

Guam December 2000 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	227	\$682	\$3.00
Jacks	122	\$287	\$2.36
Ehu (Red Snapper)	12	\$48	\$3.86
Grouper	6	\$18	\$3.00
Lehi (Silverjaw)	58	\$231	\$4.00
Onaga (Red Snapper)	126	\$632	\$5.00
Reef Fish	14,931	\$44,177	\$2.96
Wrasse	96	\$232	\$2.42
Emperor (Mafute)	21	\$62	\$3.00
Barracuda	130	\$288	\$2.22
Dolphin (Mahimahi)	11,746	\$27,013	\$2.30
Marlin	733	\$1,002	\$1.37
Sailfish	22	\$27	\$1.25
Rainbow Runner	94	\$148	\$1.58
Monchong	27	\$27	\$1.00
Wahoo	9,551	\$18,716	\$1.96
Skipjack Tuna	3,427	\$4,472	\$1.30
Dogtooth Tuna	169	\$280	\$1.65
Yellowfin Tuna	746	\$1,415	\$1.90
Invertebrates	54	\$135	\$2.50
Lobster	32	\$125	\$3.94
Octopus	340	\$1,020	\$3.00
** TOTAL **	42,668	\$101,036	\$2.37

Figure IV.1.1

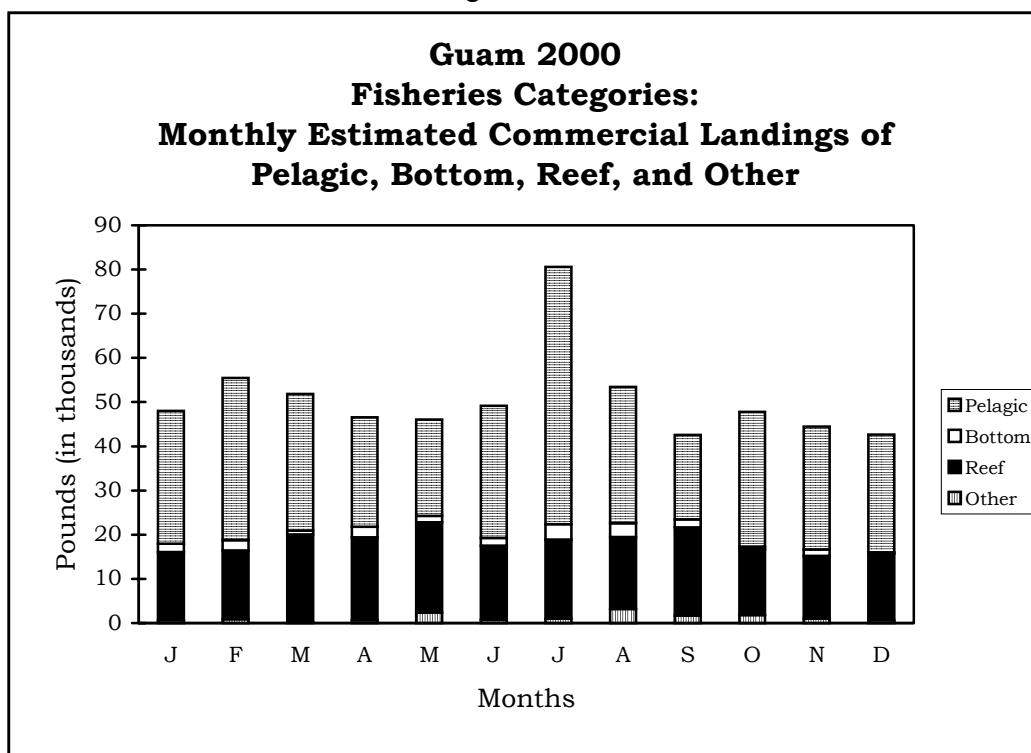


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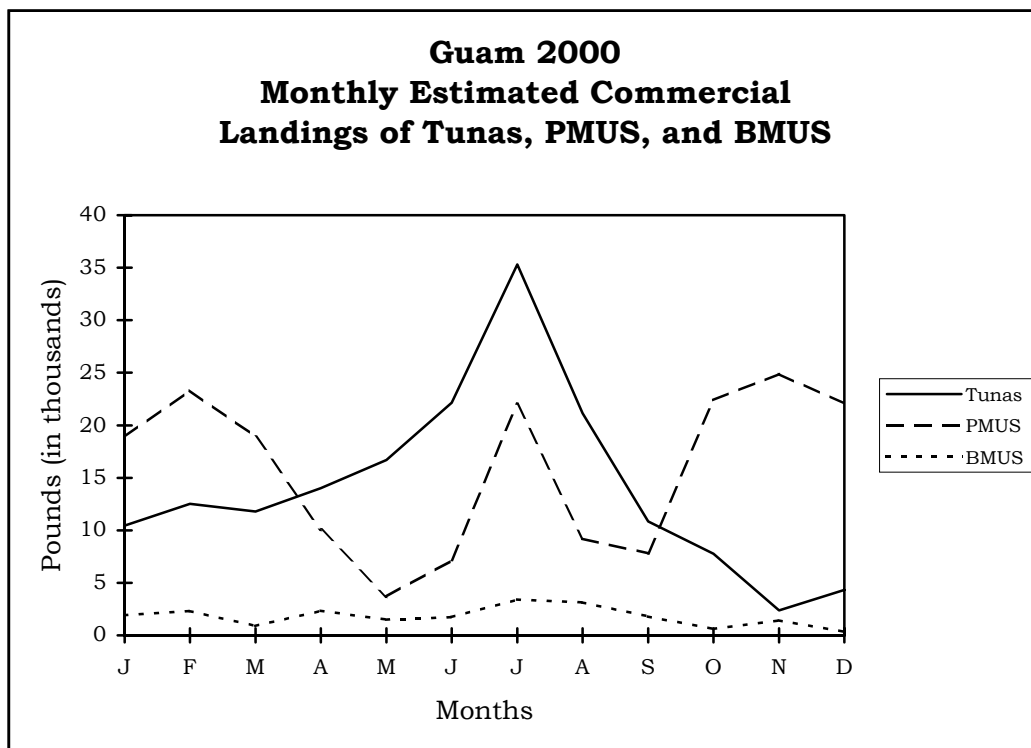


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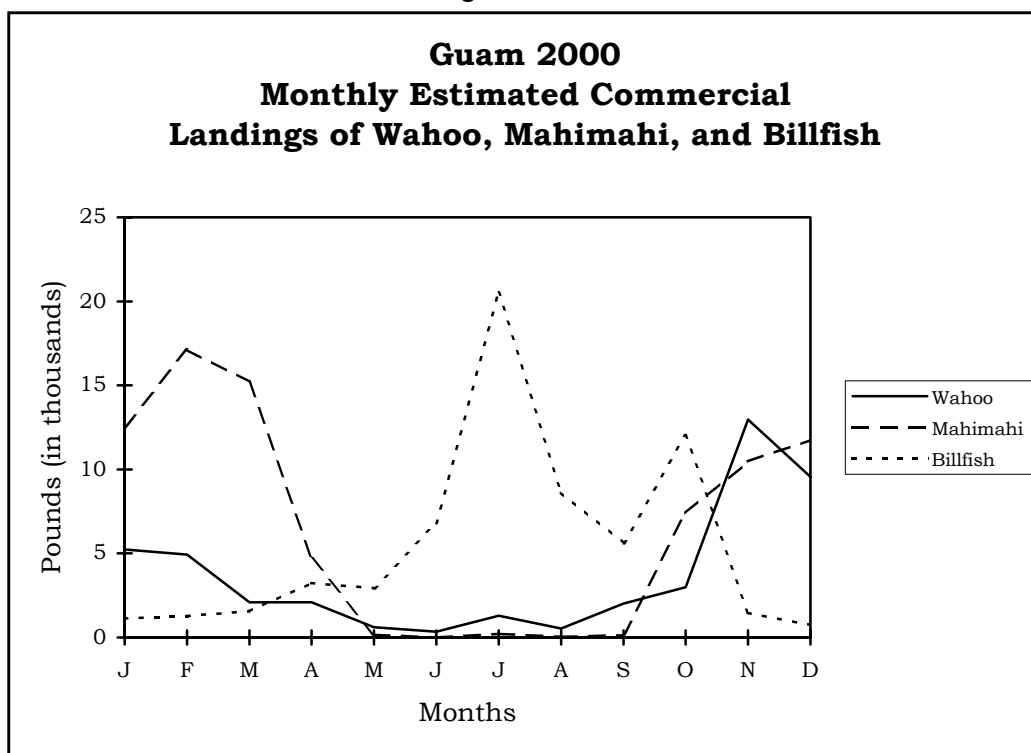


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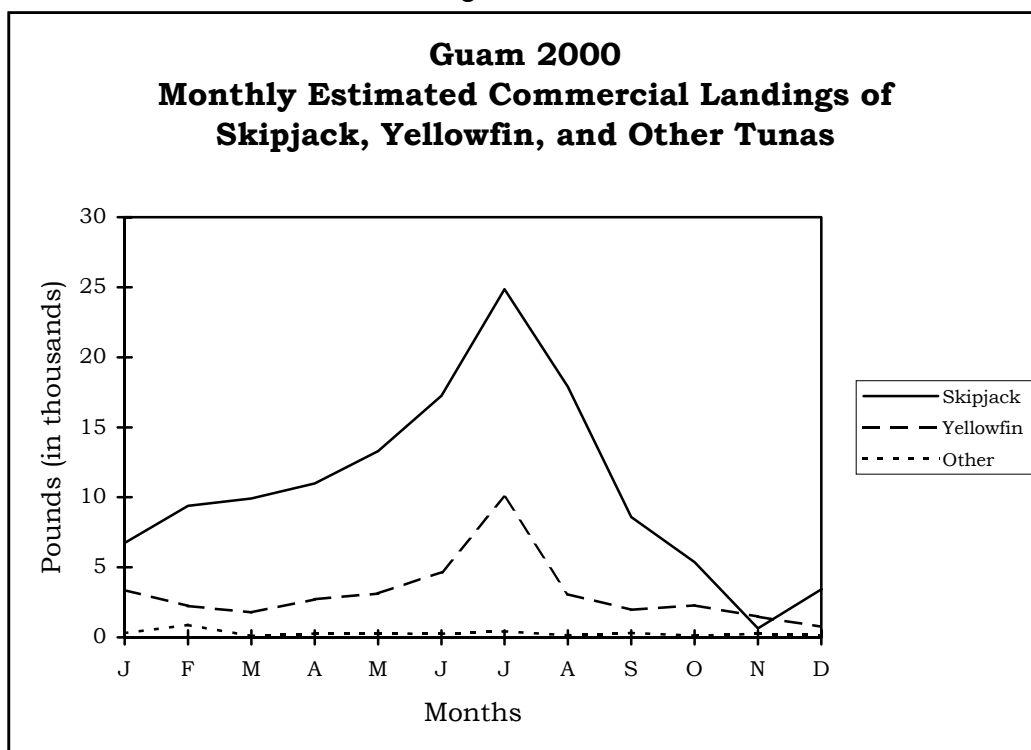


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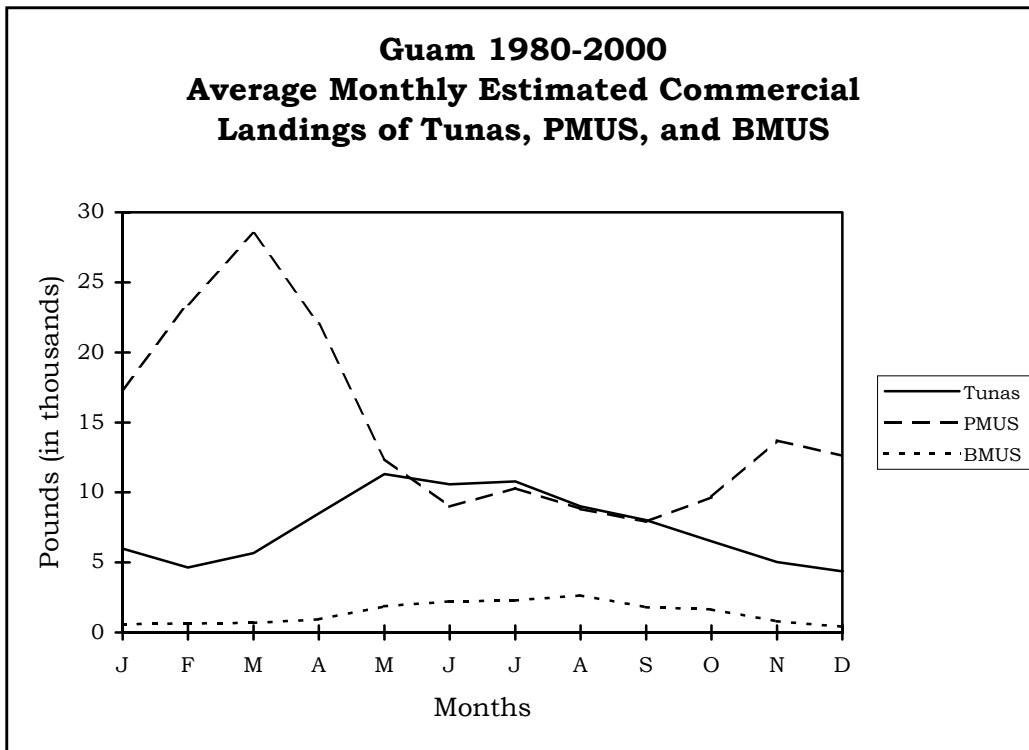


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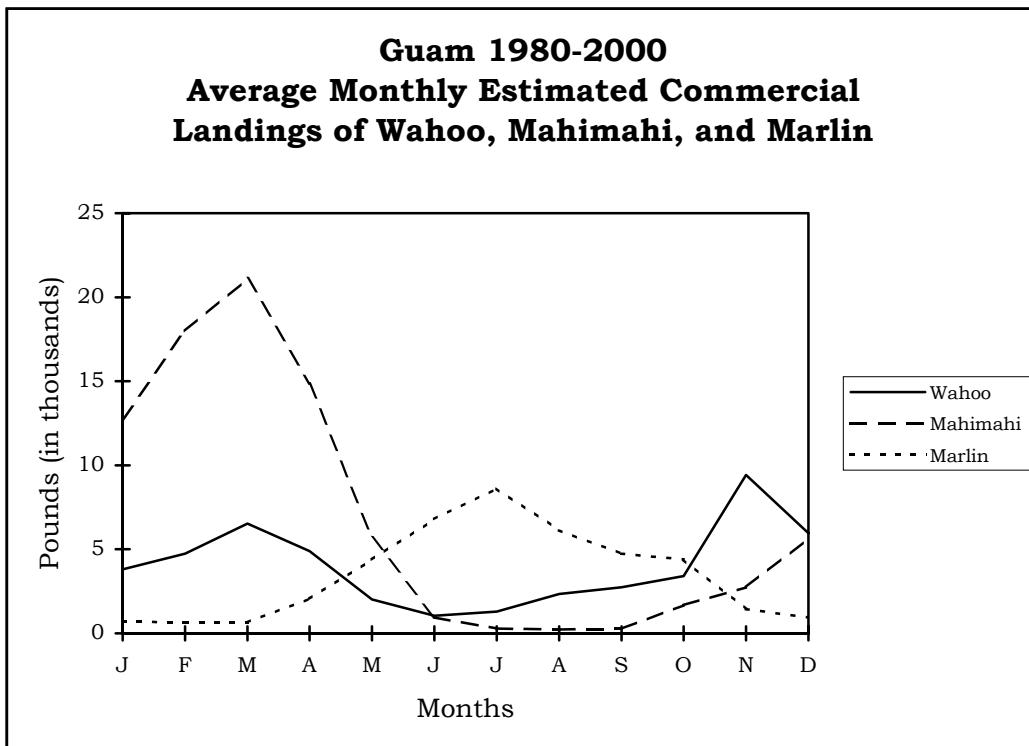


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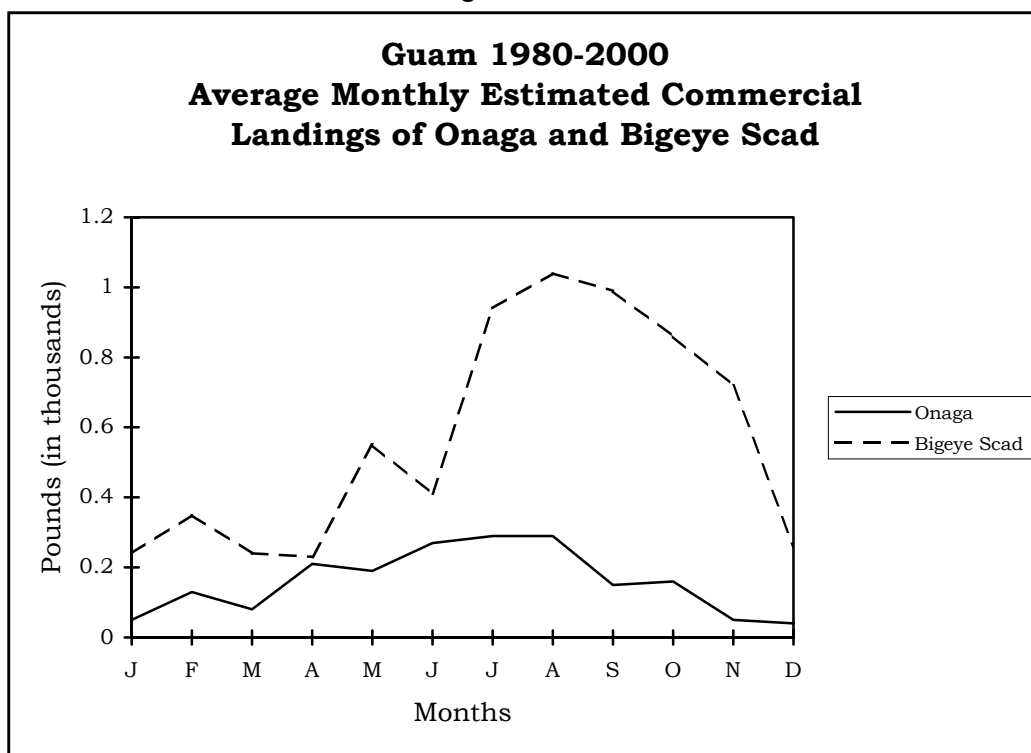


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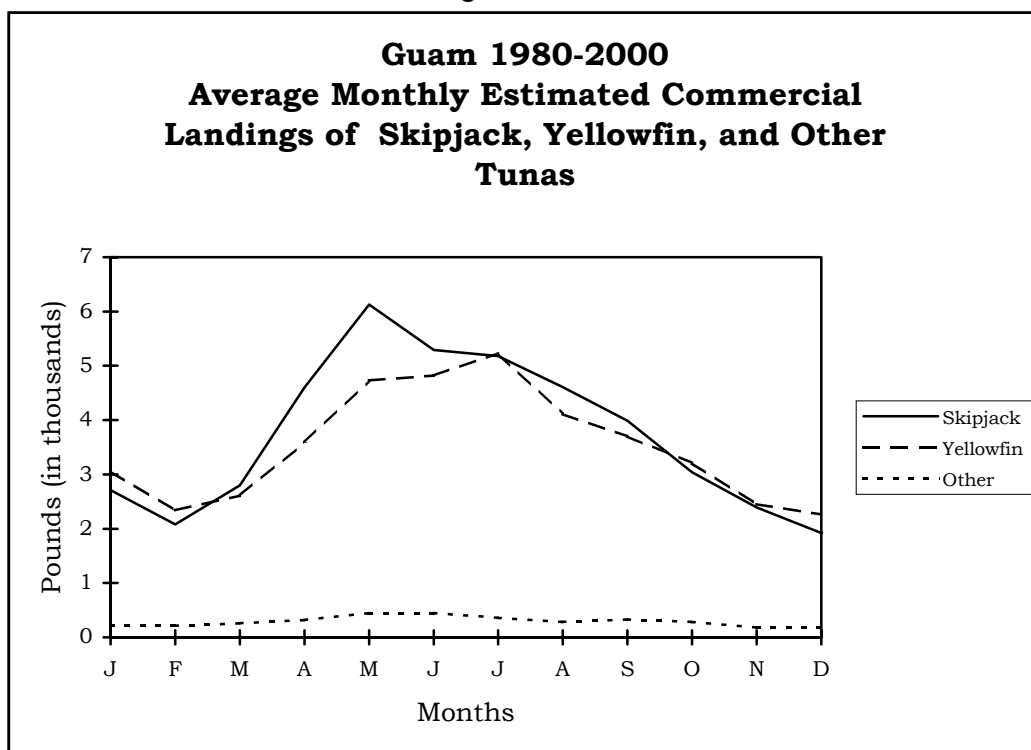


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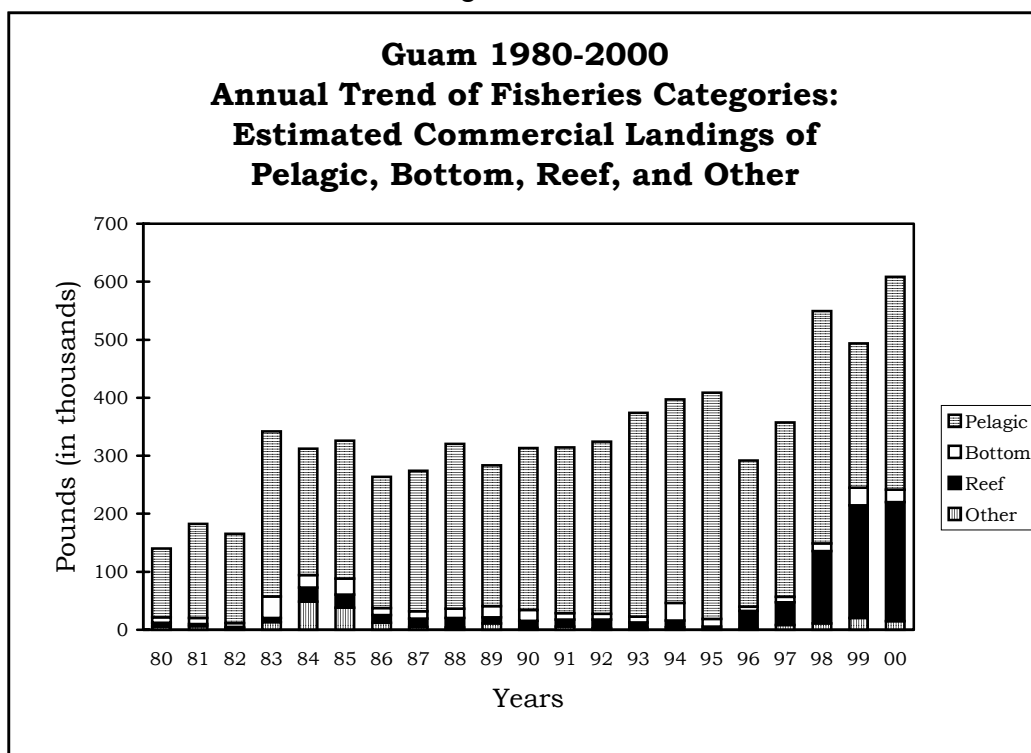


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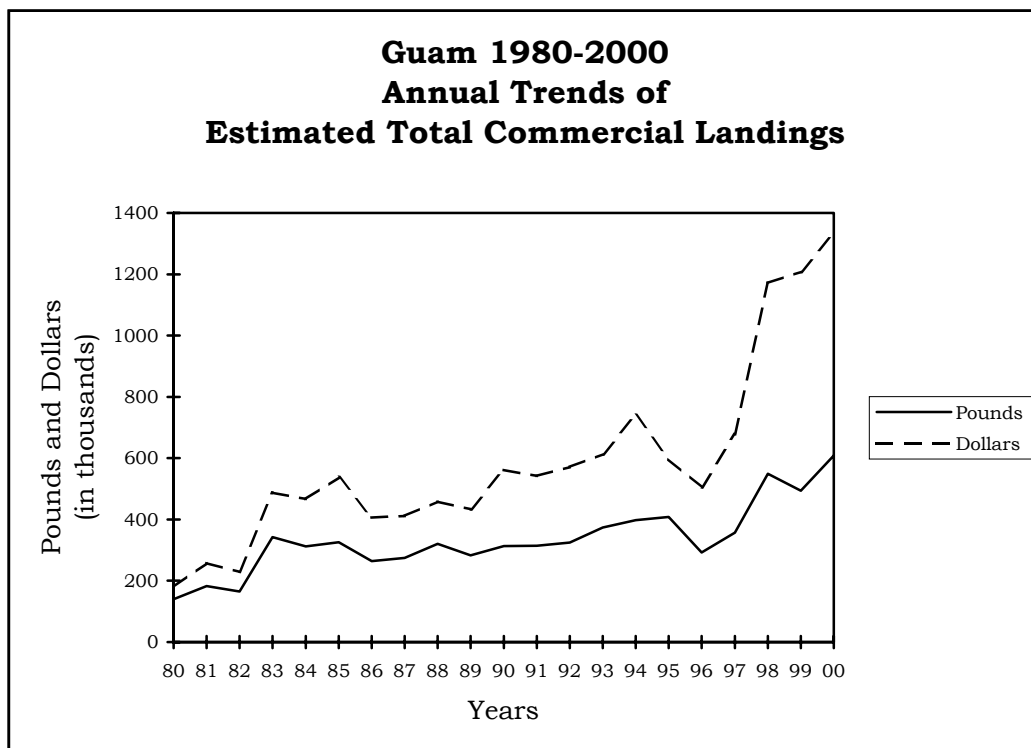


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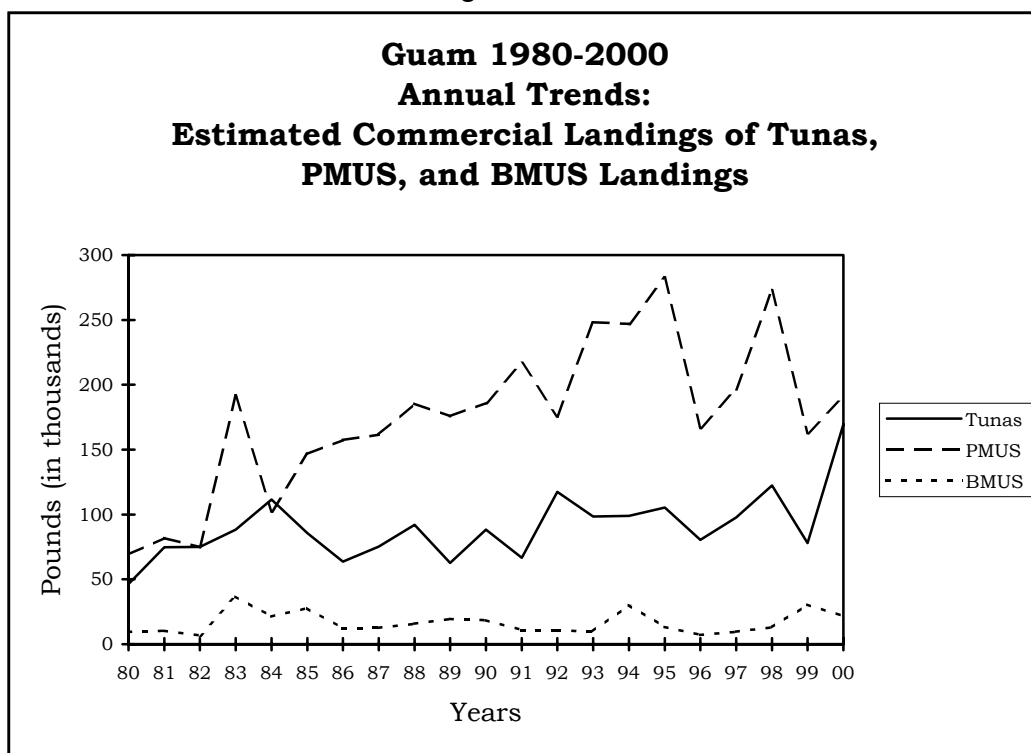


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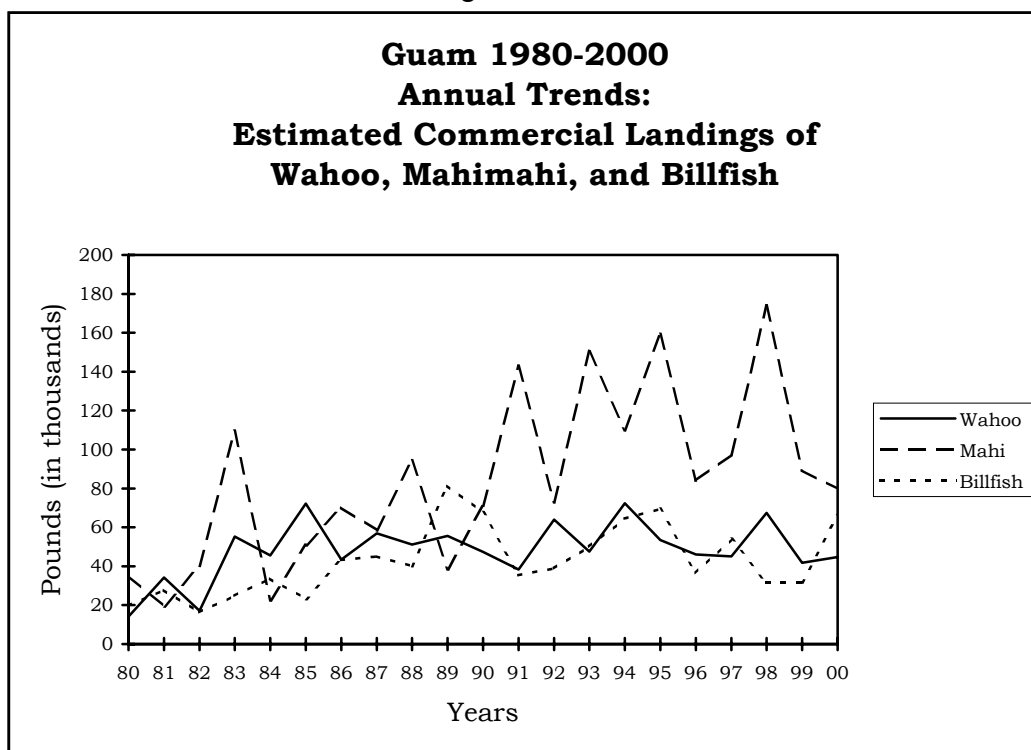


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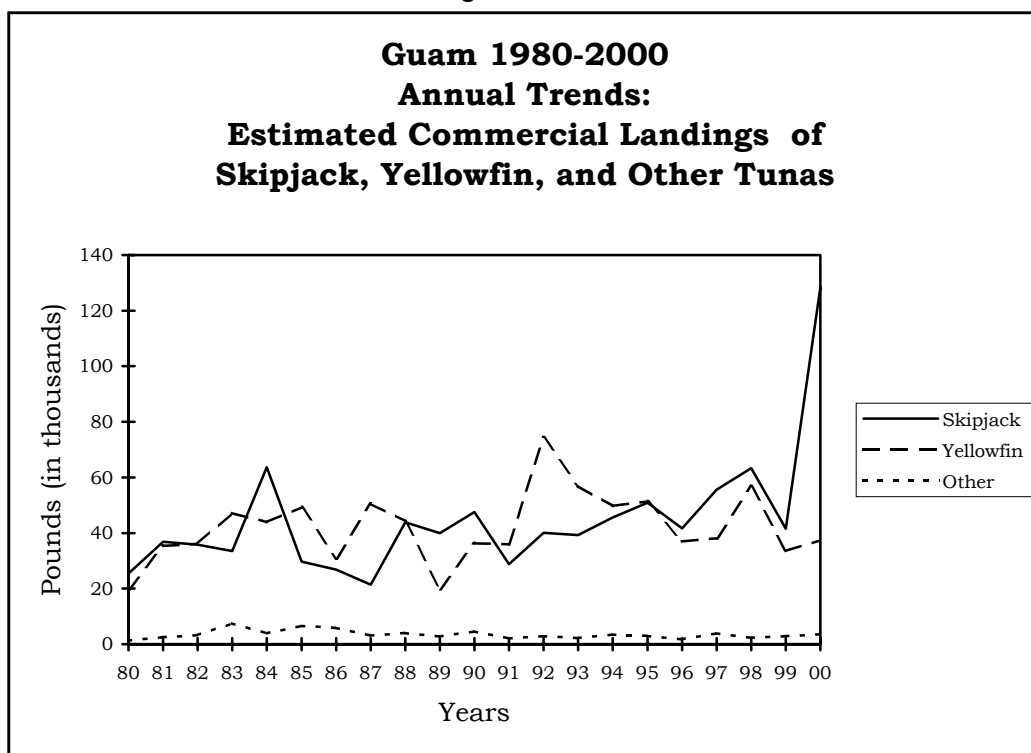


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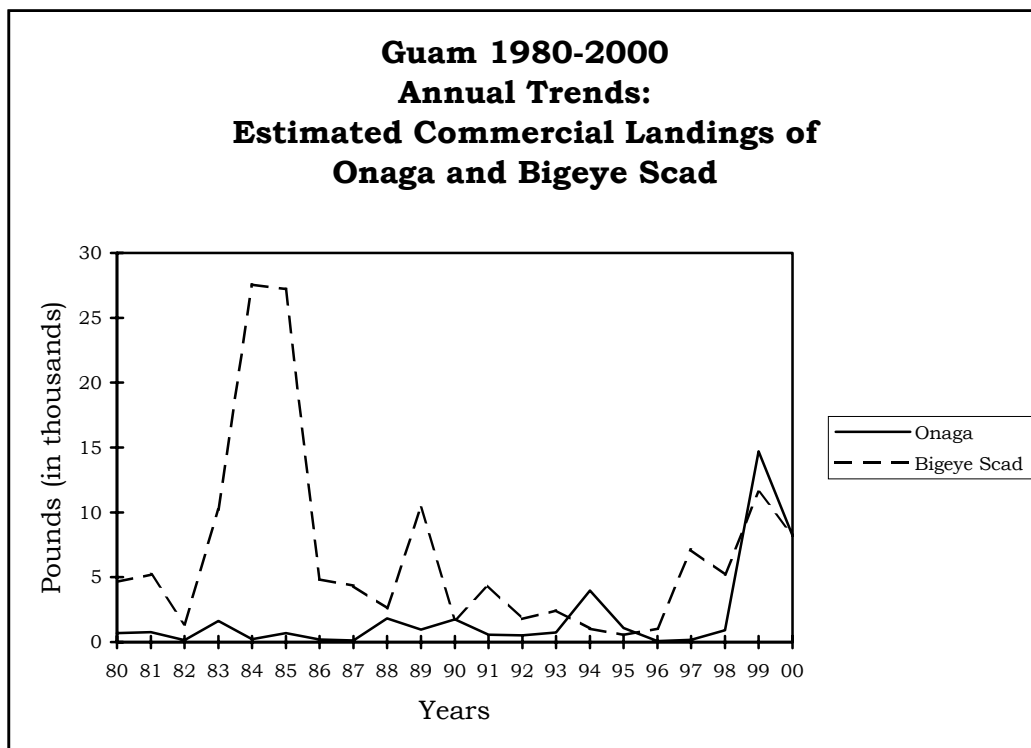


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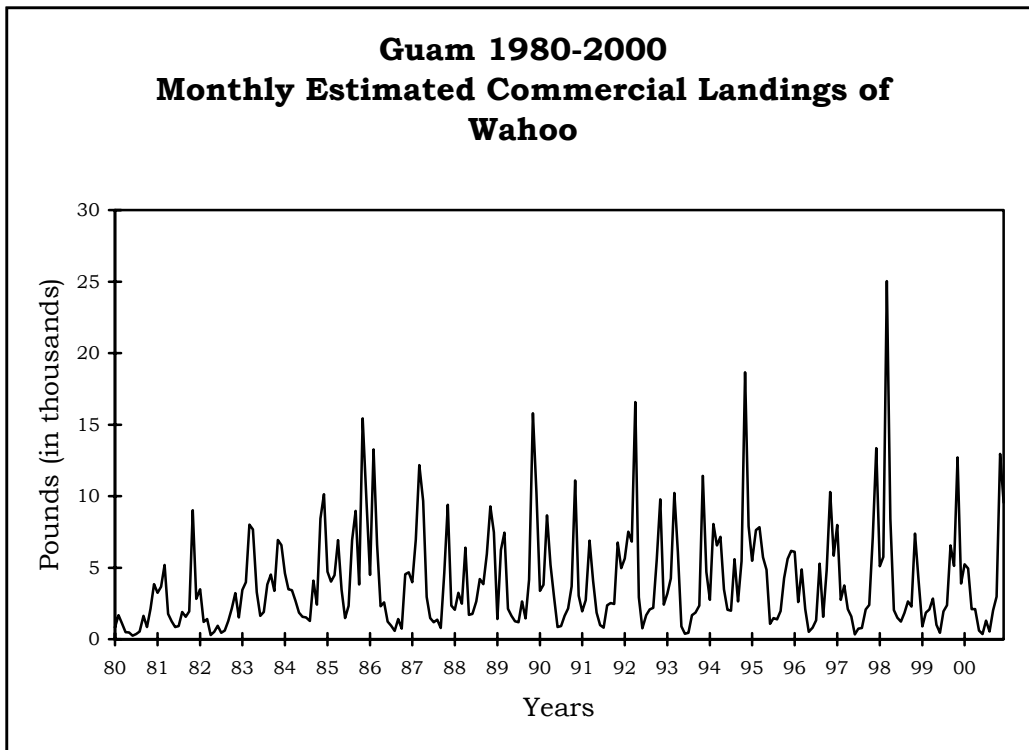


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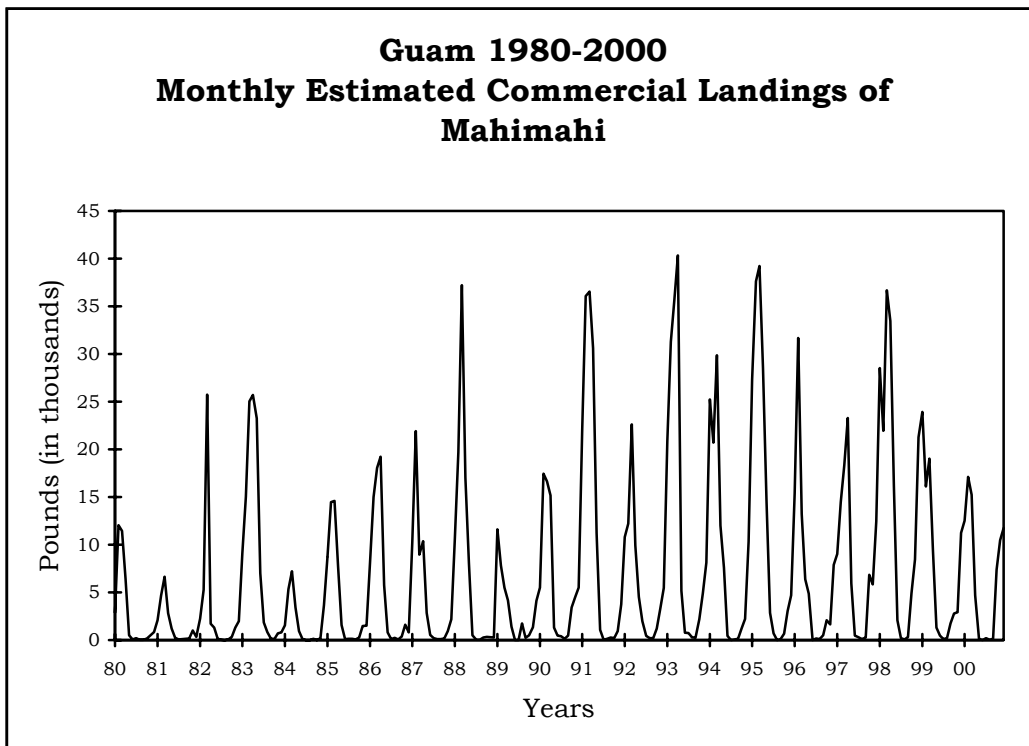


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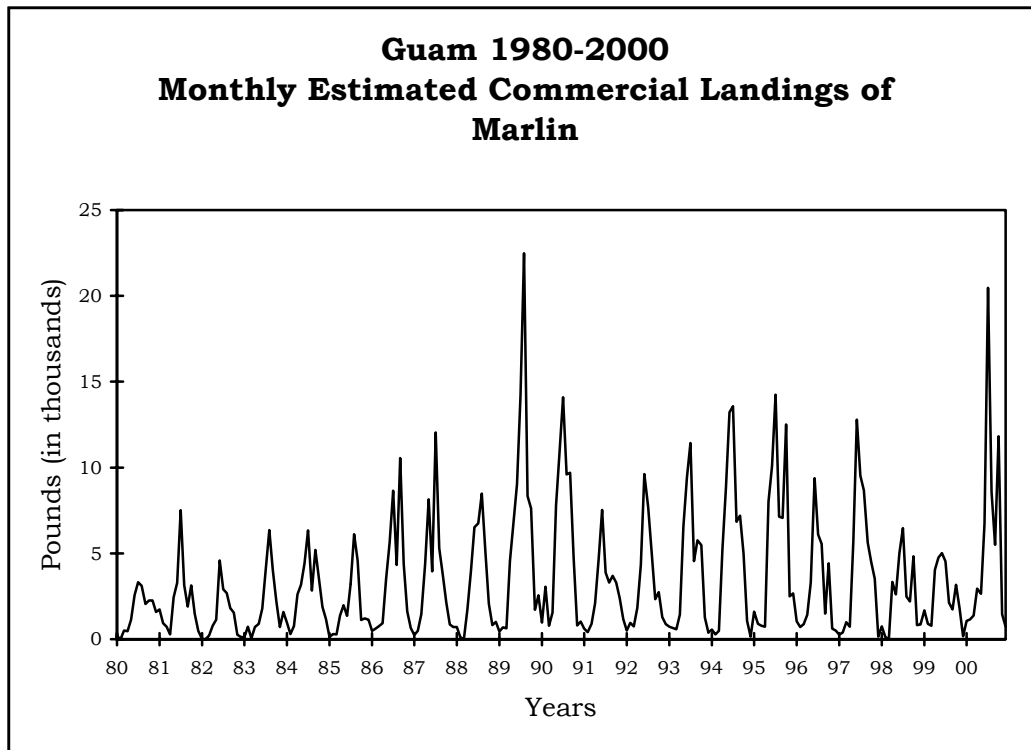


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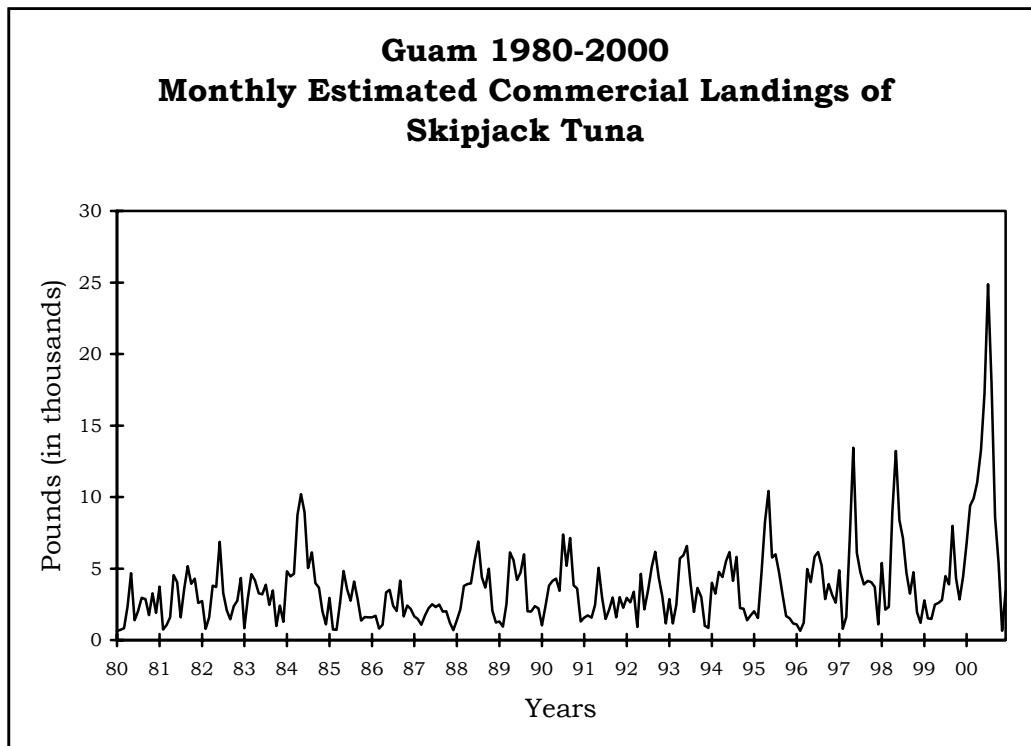


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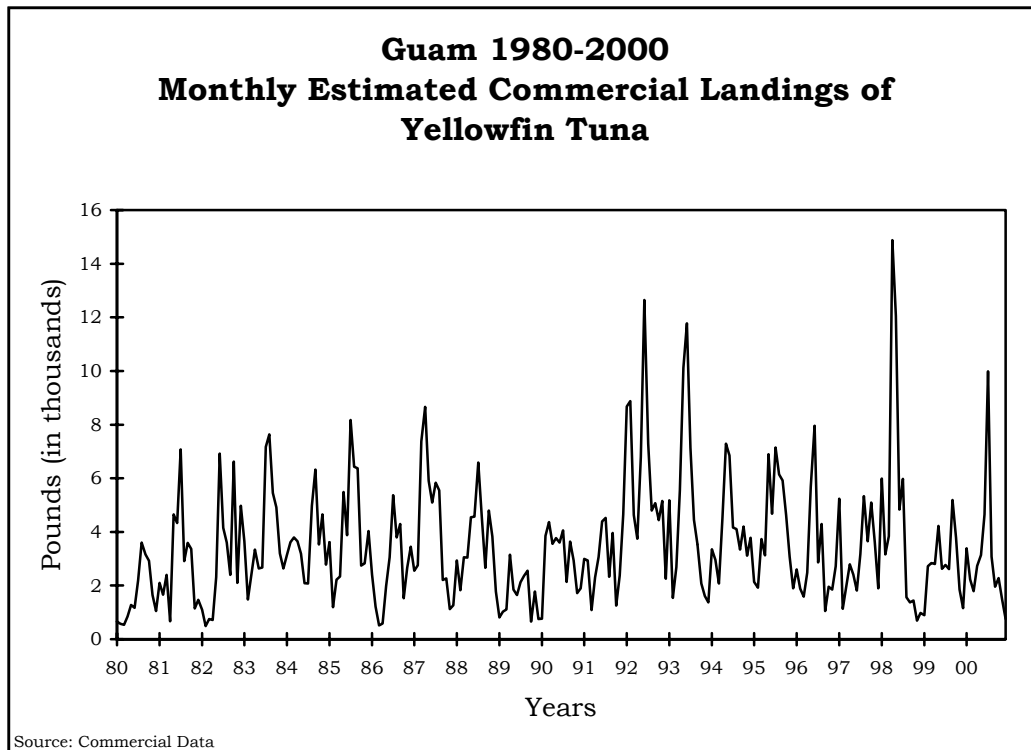


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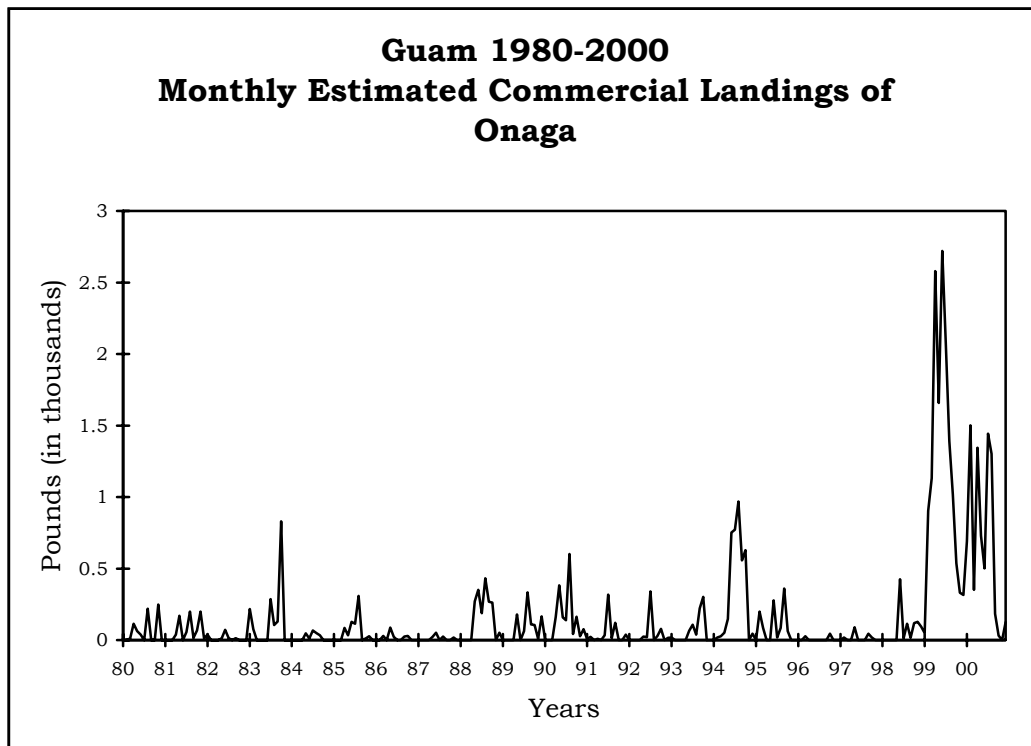


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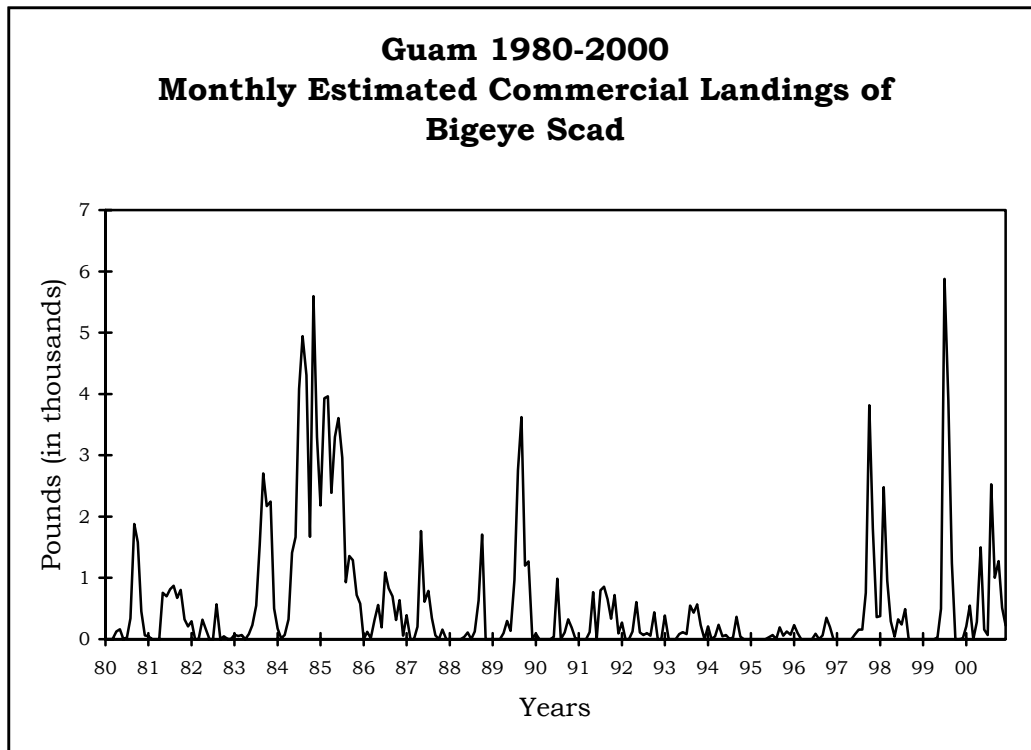
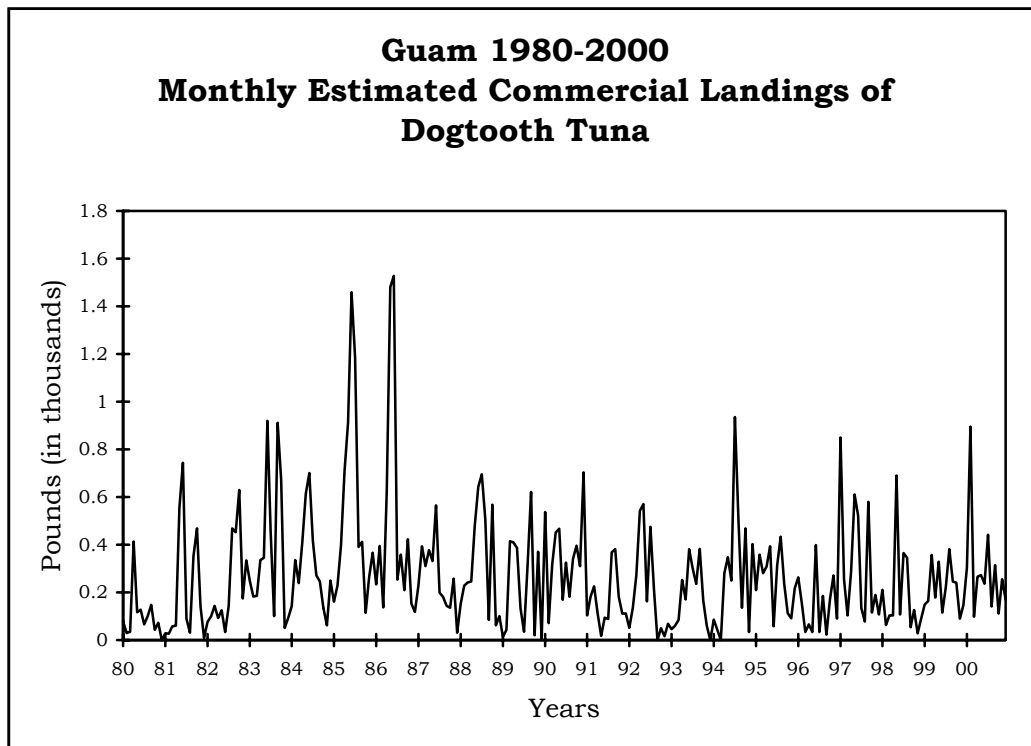


Figure IV.4.8



STATE OF HAWAII 2000 FISHERY STATISTICS

Compiled by
Division of Aquatic Resources
and the
Western Pacific Fishery Information Network

November 2002

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STATE OF HAWAII 2000 FISHERY STATISTICS

INTRODUCTION

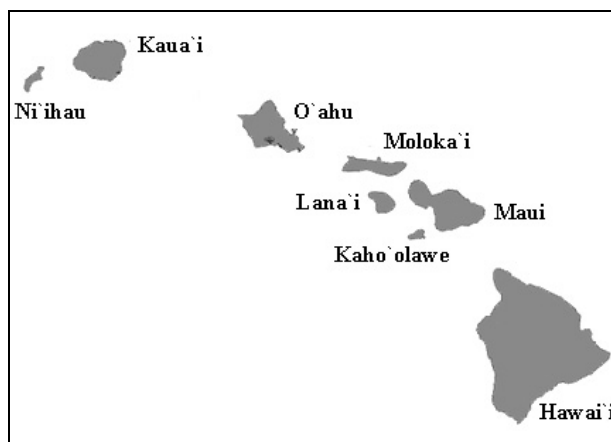
The Hawaiian Archipelago stretches northwestward over 1,500 miles.

Location: 19° N latitude, 155° W longitude to about 28° N latitude and 178° W longitude.

Islands: Hawaii, Maui, Lanai, Molokai, Oahu, Kauai, and Niihau (comprise over 99% of the total land area)

Population: over 1.3 million

Commercial Catch Breakdown:
over 80% on Oahu, about 13% on Hawaii, 4% on Kauai, 2% on Maui, and less than 1% on other islands.



Hawaiian Islands; copied and modified from:
http://satftp.soest.hawaii.edu/space/hawaii/maps/All_Islands_map.710x509.gif;
SOEST Satlab Server

The Department of Land and Natural Resources' Hawaii Division of Aquatic Resources (HDAR) has been collecting statistics on Hawaii's commercial fisheries for over 50 years.

The fisheries of the State of Hawaii are quite diverse; they vary from shore-based algae harvesting by hand to large-vessel fisheries such as longlining and lobster fishing. There are several major fisheries: tuna fishing through various methods, longlining for broadbill swordfish, lobster trapping, hook-and-line bottom fishing for the grouper-snapper-jack complex, net fishing for such species as the bigeye scad, and trolling for such pelagic species as marlin, wahoo, and mahimahi.

Commercial fishing (i.e., selling catches or providing charter fishing services) in Hawaii requires purchasing a commercial marine fishing license. In 2000, there were about 3,600 licensed commercial fishermen; 2,600 were required to submit monthly reports to HDAR, and approximately 3,100 were used in their activities. The summary 2000 data provided in this document were created from licensed commercial fishermen reports processed by HDAR as of August 2002, and it is believed to represent about 99% of what may eventually be submitted and processed.

DATA COLLECTING SYSTEM

HDAR's primary data collecting system is based on a State law that requires commercial fishermen to report their catches on a monthly basis. Several different data collection forms are used because of the diversity of fishing methods and the need to obtain specific information on some of these methods. The vast majority of commercial fishermen use the standard C-3 Fish Catch Report, which is submitted each month and requires the following information for each trip taken:

- Fisherman's name and commercial license number
- Boat's name and its registration number
- Date
- Area or buoy fished
- Type of gear used
- Species caught
- Number caught
- Pounds caught
- Pounds sold
- Value of sales
- Port of landing

The other forms used to report commercial catches are for specific fisheries. These include the C-4 Aku Catch Report for the pole-and-line or bait-boat fishery for skipjack tuna, the C-5 Flagline Catch Report for the longline fishery for tunas and other pelagic species, the Albacore Trolling Trip Report, and the Pond Operator's Monthly Fish Report for operators of saltwater fish ponds. All of the forms request basic catch and revenue information by species, plus additional fishery-specific information such as effort and bait. Commercial collectors of tropical marine fish are required to have an aquarium permit in addition to their commercial marine license and are required to report monthly on the C-6 Aquarium Fish Catch Report. The aquarium fish catch, however, is not included in the statistics provided in this document.

Some of the advantages of a mandatory fisherman-reporting system are its relative efficiency, low cost, the potential for excellent percent coverage, and the amount of information that can be collected directly from the fishermen. The major disadvantage is that it places the responsibility for data recording and timely data submission on the fishermen.

The assumption is made, therefore, that the data submitted by the fishermen are complete and accurate. The HDAR continually attempts to improve the quality of data and decrease the time delays in receiving and processing the data. No real measurement is available for what percent of the total commercial catch is actually reported to HDAR, but estimates have ranged from about 10% to over 99%, depending on the species and fishery. The overall percent coverage was probably over 80% in 2000.

DATA PROCESSING SYSTEM

When HDAR receives various data reporting forms, it codes and edits the data before sending it out for keypunching. Forms that fail the initial HDAR staff editing are returned to the fishermen for correction and resubmission, or minor problems may be cleared up with fishermen over the telephone. Notices are sent to fishermen who fall more than a few months behind in their reporting. Once the data are keypunched, HDAR staff use computer-generated reports to verify and correct errors in the database. When the database is considered to be reasonably complete and error free, it is ready for use in producing various summary catch reports.

DATA REPORTING SYSTEM

More than 150 marine species and species groups are recorded in HDAR's monthly landings reports, many of which are insignificant in the total catch. To help reduce this document's size and improve the usability of the tables, WPacFIN staff combined some of the less important species, reorganized the order of presentation, created a new species coding system, and translated all records in the database. The new coding system has 100 species and species groups based on flexible ecological and phylogenetic criteria. All of the commercially important pelagic and bottom fish species or unique species groups have individual codes and are reported separately. Marine pond catches are included in the species totals, but make up less than 0.4% of the total landings for each year.

The monthly and annual reports included in this document contain the common name, weight in pounds, value rounded to the nearest dollar, and the average price per pound for each species. The annual report also includes a column that shows weight sold. Each monthly report contains a subtotal for the sum of all species for that month. Annual reports contain the total landings for each species and the total recorded landings for all species combined for the calendar year. Several types of graphs are also included. Please note that some of the charts in this volume are new or modified from earlier volumes.

Modified

- V.1.4 Bigeye replaces Yellowfin
- V.3.4 Billfish removed
- V.3.6 Bigeye replaces Yellowfin

New

- V.1.5 Monthly Landings of Albacore and Yellowfin Tuna
- V.2.3 Avg. Monthly Landings of Swordfish, Striped Marlin, and Blue Marlin
- V.2.5 Avg. Monthly Landings of Opakapaka, Onaga, and Uku
- V.2.6 Avg. Monthly Landings of Albacore and Yellowfin Tuna
- V.2.7 Avg. Monthly Landings of Bigeye and Mackerel Scad

New (cont.)

V.2.8	Avg. Monthly Landings of Spiny Lobster and Saltwater Shrimp
V.3.5	Annual Trends of Albacore, Yellowfin, and Swordfish
V.3.7	Annual Trends of Striped and Blue Marlin
V.3.8	Annual Trends Opakapaka, Onaga, and Uku
V.3.9	Annual Trends of Bigeye and Mackerel Scad
V.3.10	Annual Trends of Spiny Lobster and Saltwater Shrimp
V.4.3	Landings of Bigeye Tuna
V.4.5	Landings of Bigeye Scad
V.4.7	Landings of Mackerel Scad
V.4.11	Landings of Goatfish
V.4.13	Landings of Crab

The following species, species groups, and abbreviations are used in the tables and graphs of Hawaii's fishery statistics:

I. Pelagic Management Unit Species (PMUS)

Although the Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to include tunas in the Pacific PMUS (PPMUS), this report series will continue to specify tunas as a separate category from the PPMUS. The PMUS category in this report includes:

Mahimahi (dolphin)	Wahoo
Blue marlin	Black marlin
Striped marlin	Shortnose spearfish
Sailfish	Broadbill swordfish
Sharks	Billfish (misc.)

II. Bottomfish Management Unit Species (BMUS)

Deep water jacks (misc.)	Amberjack
Pig-lipped ulua (jack)	White Ulua
Giant sea bass	Blue lined snapper
Ehu (red snapper)	Gindai (flower snapper)
Kalekale (pink snapper)	Lehi (silverjaw snapper)
Onaga (long tailed snapper)	Opakapaka (pink snapper)
Uku (gray snapper)	Snappers

III. Billfish

Billfish	Blue Marlin
Black Marlin	Striped Marlin
Shortnose spearfish	Sailfish
Broadbill swordfish	

IV. Tunas

Tunas (misc.)	Skipjack tuna
Yellowfin tuna	Albacore
Bigeye tuna	Kawakawa
Dogtooth tuna	

V. Other Tunas

All of the previous tunas excluding skipjack and yellowfin tuna

VI. Fisheries Categories

A. Pelagic Species

All PMUS and tuna species including the following:

Rainbow runner	Barracuda
Japanese mackerel	Frigate tuna
Ocean sunfish	Ocean moonfish

B. Bottom Fish

All BMUS plus the following:

Blue crevally	Dobe ulua
Paapaa ulua	Blue spot grouper
Porgy	

C. Reef Fish

Reef jacks (misc.)	Squirrelfish
Trumpetfish	Scorpionfish
Mountain bass	Bigeyes
Cardinalfish	Goatfish
Rudderfish	Butterflyfish

C. Reef Fish (cont.)

Damselfish	Hawkfish
Tipapia	Wrasse
Parrotfish	Gobies
Surgeonfish-tangs	Flounders
Triggerfish	Filefish
Pufferfish	

D. Other

Miscellaneous	Rays
Eels	Bigeye scad (akule)
Mackerel scad (opelu)	Leatherback
Anchovy	Ten pounder
Bonefish	Herring-sardine
Milkfish	Flyingfish
Needlefish	Halfbeaks
Threadfin	Mullet
Pomfret	Snake mackerel
Freshwater fish	Spiny lobster
Slipper lobster	Crabs
Shrimp (freshwater)	Shrimp (saltwater)
Octopus	Squid
Limpets (saltwater)	Limpets (freshwater)
Clams	Stoney corals
Precious Corals	Sea urchins
Sea cucumbers	Sea turtles
Algae	

V.7

Table V.1.1

Hawaii 2000 Annual Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	1,530	1,139	\$1,032	\$0.91
Sharks	131,819	106,440	\$125,704	\$1.18
Shark fins	4,808	4,808	\$109,794	\$22.84
Eels	533	515	\$623	\$1.21
Alfonsin	21	16	\$38	\$2.38
Armorhead	8	0	\$0	\$0.00
Bigeye scad (akule)	1,096,726	1,034,820	\$1,568,422	\$1.52
Mackerel scad	265,052	255,711	\$455,231	\$1.78
Leatherback	461	427	\$794	\$1.86
Ten pounder	303	296	\$275	\$0.93
Bonefish	7,041	6,270	\$6,416	\$1.02
Milkfish	1,845	1,837	\$1,748	\$0.95
Flying fish	5	5	\$3	\$0.50
Needlefish	545	534	\$694	\$1.30
Threadfin	749	655	\$2,492	\$3.81
Mullet	7,035	6,612	\$20,770	\$3.14
Pomfret	246,317	245,398	\$438,903	\$1.79
Snake mackerel	80,435	80,198	\$139,168	\$1.74
Jacks (misc)	24,351	17,767	\$36,593	\$2.06
Amberjack	24,597	4,334	\$4,315	\$1.00
Blue crevally	2,574	1,964	\$4,132	\$2.10
Pig-lipped ulua	38,406	33,291	\$60,676	\$1.82
Dobe ulua	1,386	1,375	\$2,357	\$1.71
Paapaa ulua	4,122	3,722	\$8,029	\$2.16
White ulua	6,074	5,079	\$7,205	\$1.42
Black ulua	658	620	\$735	\$1.19
Giant sea bass	41,435	39,338	\$141,569	\$3.60
Blue spot grouper	665	445	\$1,013	\$2.28
Snappers	1,401	1,192	\$3,917	\$3.29
Blue lined snapper	55,058	46,004	\$47,762	\$1.04
Ehu (red snapper)	43,119	40,022	\$155,730	\$3.89
Gindai (flower snapper)	5,646	4,960	\$16,187	\$3.26
Kalekale(pink snapper)	21,018	18,816	\$56,793	\$3.02
Lehi (silverjaw)	11,413	9,822	\$31,286	\$3.19
Onaga (red snapper)	169,342	160,848	\$812,305	\$5.05
Opakapaka (pink snapper)	206,784	193,825	\$857,657	\$4.42
Uku (gray snapper)	123,067	115,996	\$298,619	\$2.57
Porgy	2,868	2,704	\$7,359	\$2.72
Reef jacks	70	70	\$199	\$2.85
Squirrelfish	37,901	35,077	\$112,054	\$3.19
Trumpetfish	31	21	\$22	\$1.06

Table V.1.1 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Scorpionfish	3,400	2,935	\$11,002	\$3.75
Mountain bass	2,998	2,651	\$8,950	\$3.38
Bigeyes	2,988	2,677	\$6,873	\$2.57
Cardinalfish	21	6	\$6	\$0.93
Goatfish	40,155	36,061	\$115,019	\$3.19
Rudderfish	9,704	9,424	\$13,345	\$1.42
Damselfish	628	564	\$1,103	\$1.96
Hawkfish	503	483	\$706	\$1.46
Tilapia	257	257	\$257	\$1.00
Wrasse	7,833	6,180	\$24,878	\$4.03
Parrotfish	28,575	27,142	\$66,536	\$2.45
Surgeon/tangs	86,792	84,864	\$113,019	\$1.33
Flounders	34	34	\$37	\$1.10
Triggerfish	117	33	\$41	\$1.23
Filefish	25,624	25,166	\$20,267	\$0.81
Pufferfish	2	0	\$0	\$0.00
Rainbow runner	3,634	2,833	\$4,652	\$1.64
Mahimahi (dolphin)	1,377,858	1,285,424	\$2,670,655	\$2.08
Barracudas	18,431	16,972	\$21,554	\$1.27
Wahoo	656,386	604,825	\$1,532,609	\$2.53
Tunas	4,440	4,347	\$42,524	\$9.78
Skipjack tuna	1,055,072	992,551	\$1,444,779	\$1.46
Yellowfin tuna	4,732,481	4,637,469	\$11,956,788	\$2.58
Albacore	2,038,797	2,034,321	\$2,815,822	\$1.38
Bigeye tuna	5,601,005	5,575,995	\$19,528,501	\$3.50
Kawakawa	8,923	5,626	\$8,191	\$1.46
Frigate tuna	324	181	\$332	\$1.84
Billfish	621	574	\$405	\$0.71
Broadbill swordfish	3,687,850	3,680,773	\$10,344,816	\$2.81
Blue marlin	923,202	844,158	\$1,032,785	\$1.22
Black marlin	12,946	10,746	\$14,477	\$1.35
Striped marlin	483,297	474,183	\$874,397	\$1.84
Shortnose spearfish	290,674	279,778	\$341,776	\$1.22
Sailfish	5,297	4,809	\$6,284	\$1.31
Ocean sunfish	108	78	\$9	\$0.11
Ocean moonfish	610,113	609,908	\$980,533	\$1.61
Spiny lobster	10,111	9,147	\$106,753	\$11.67
Slipper lobster	179	159	\$1,541	\$9.69
Crabs	25,072	20,669	\$82,215	\$3.98
Shrimp (freshwater)	27	20	\$144	\$7.21
Shrimp (saltwater)	826	752	\$5,047	\$6.71
Octopus	23,432	18,921	\$54,837	\$2.90

V.9

Table V.1.1 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Squid	4,971	4,080	\$9,647	\$2.36
Limpets (saltwater)	9,950	8,707	\$40,977	\$4.71
Limpets (freshwater)	22	16	\$50	\$3.11
Precious corals	8,970	3,380	\$84,500	\$25.00
Sea cucumbers	220	220	\$895	\$4.07
Algae	10,483	9,782	\$31,709	\$3.24
** TOTAL **	24,482,572	23,822,854	\$59,960,865	\$2.52

Table V.1.2

Hawaii January 2000 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	231	220	\$103	\$0.47
Sharks	17,791	10,779	\$13,134	\$1.22
Shark fins	159	159	\$3,395	\$21.35
Eels	15	13	\$17	\$1.33
Bigeye scad (akule)	128,232	123,874	\$191,812	\$1.55
Mackerel scad	24,646	23,630	\$41,793	\$1.77
Leatherback	46	42	\$72	\$1.70
Ten pounder	73	66	\$66	\$0.99
Bonefish	39	39	\$38	\$0.99
Milkfish	15	15	\$27	\$1.80
Needlefish	52	52	\$64	\$1.24
Threadfin	162	162	\$433	\$2.67
Mullet	80	80	\$380	\$4.75
Pomfret	13,071	13,071	\$30,532	\$2.34
Snake mackerel	3,361	3,361	\$5,508	\$1.64
Jacks (misc)	1,628	1,175	\$2,324	\$1.98
Amberjack	1,932	92	\$215	\$2.34
Blue crevally	104	71	\$172	\$2.42
Pig-lipped ulua	1,244	1,161	\$3,198	\$2.75
Dobe ulua	7	7	\$13	\$1.85
Paapaa ulua	419	407	\$1,017	\$2.50
White ulua	274	254	\$455	\$1.79
Black ulua	28	28	\$50	\$1.77
Giant sea bass	2,565	2,548	\$8,923	\$3.50
Blue spot grouper	149	109	\$245	\$2.25
Snappers	62	60	\$181	\$3.01
Blue lined snapper	6,423	5,172	\$4,911	\$0.95
Ehu (red snapper)	2,222	2,002	\$8,691	\$4.34
Gindai (flower snapper)	320	272	\$1,098	\$4.04
Kalekale(pink snapper)	1,148	1,027	\$3,476	\$3.39
Lehi (silverjaw)	789	704	\$2,118	\$3.01
Onaga (red snapper)	13,990	13,195	\$68,317	\$5.18
Opakapaka (pink snapper)	16,254	14,550	\$69,875	\$4.80
Uku (gray snapper)	5,426	4,710	\$16,349	\$3.47
Porgy	126	126	\$353	\$2.80
Reef jacks	4	4	\$11	\$2.63
Squirrelfish	2,719	2,543	\$8,320	\$3.27
Trumpetfish	7	6	\$7	\$1.16
Scorpionfish	150	116	\$526	\$4.54
Mountain bass	258	236	\$873	\$3.70
Bigeyes	250	229	\$617	\$2.70

V.11

Table V.1.2 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Goatfish	4,497	4,153	\$11,676	\$2.81
Rudderfish	99	92	\$166	\$1.80
Damselfish	60	60	\$133	\$2.22
Hawkfish	30	30	\$63	\$2.08
Wrasse	447	285	\$1,063	\$3.73
Parrotfish	2,242	2,042	\$5,482	\$2.68
Surgeon/tangs	7,895	7,658	\$10,015	\$1.31
Flounders	2	2	\$2	\$1.00
Filefish	1,083	1,083	\$1,277	\$1.18
Rainbow runner	113	63	\$160	\$2.54
Mahimahi (dolphin)	41,663	37,615	\$96,245	\$2.56
Barracudas	332	254	\$390	\$1.54
Wahoo	10,669	9,928	\$33,910	\$3.42
Tunas	1,822	1,807	\$21,635	\$11.97
Skipjack tuna	24,470	20,905	\$54,412	\$2.60
Yellowfin tuna	223,376	215,670	\$508,302	\$2.36
Albacore	56,196	56,086	\$111,202	\$1.98
Bigeye tuna	492,141	489,971	\$1,880,984	\$3.84
Kawakawa	211	104	\$158	\$1.52
Frigate tuna	6	0	\$0	\$0.00
Broadbill swordfish	283,253	283,253	\$780,102	\$2.75
Blue marlin	40,781	36,544	\$45,147	\$1.24
Black marlin	611	611	\$1,335	\$2.19
Striped marlin	49,056	47,017	\$90,391	\$1.92
Shortnose spearfish	31,884	30,925	\$43,568	\$1.41
Ocean sunfish	36	36	\$5	\$0.13
Ocean moonfish	49,508	49,508	\$94,064	\$1.90
Spiny lobster	1,093	1,028	\$12,197	\$11.86
Slipper lobster	34	22	\$151	\$6.88
Crabs	1,863	1,624	\$6,348	\$3.91
Shrimp (saltwater)	101	101	\$693	\$6.86
Octopus	1,851	1,660	\$4,584	\$2.76
Squid	1	0	\$0	\$0.00
Limpets (saltwater)	771	761	\$3,486	\$4.58
Precious corals	301	190	\$4,750	\$25.00
Sea cucumbers	7	7	\$52	\$7.43
Algae	477	410	\$1,531	\$3.73
TOTAL	1,575,453	1,527,872	\$4,315,389	\$2.82

V.12

Table V.1.3

Hawaii February 2000 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	189	161	\$201	\$1.25
Sharks	20,102	14,294	\$15,717	\$1.10
Shark fins	624	624	\$14,022	\$22.47
Eels	32	32	\$36	\$1.11
Alfonsin	8	8	\$16	\$2.00
Bigeye scad (akule)	83,078	79,285	\$125,148	\$1.58
Mackerel scad	26,194	25,580	\$46,010	\$1.80
Leatherback	137	130	\$254	\$1.95
Ten pounder	13	13	\$16	\$1.25
Bonefish	68	68	\$97	\$1.42
Needlefish	25	25	\$34	\$1.38
Threadfin	96	69	\$270	\$3.91
Mullet	135	135	\$526	\$3.90
Pomfret	18,115	18,115	\$41,628	\$2.30
Snake mackerel	10,024	9,934	\$17,178	\$1.73
Jacks (misc)	1,887	1,441	\$3,095	\$2.15
Amberjack	3,714	156	\$232	\$1.49
Blue crevally	63	48	\$77	\$1.60
Pig-lipped ulua	3,085	2,988	\$6,051	\$2.03
Paapaa ulua	495	489	\$1,140	\$2.33
White ulua	271	226	\$305	\$1.35
Giant sea bass	4,036	3,903	\$13,807	\$3.54
Blue spot grouper	60	51	\$119	\$2.32
Snappers	80	70	\$208	\$2.98
Blue lined snapper	6,375	5,656	\$5,713	\$1.01
Ehu (red snapper)	4,913	4,625	\$16,480	\$3.56
Gindai (flower snapper)	570	493	\$1,675	\$3.40
Kalekale(pink snapper)	2,857	2,415	\$6,067	\$2.51
Lehi (silverjaw)	1,962	1,840	\$5,739	\$3.12
Onaga (red snapper)	25,807	24,571	\$116,201	\$4.73
Opakapaka (pink snapper)	36,857	34,943	\$138,061	\$3.95
Uku (gray snapper)	5,276	4,909	\$16,450	\$3.35
Porgy	489	489	\$1,458	\$2.98
Reef jacks	1	1	\$2	\$1.50
Squirrelfish	2,002	1,824	\$5,762	\$3.16
Trumpetfish	2	2	\$2	\$1.00
Scorpionfish	479	421	\$1,519	\$3.61
Mountain bass	304	280	\$857	\$3.06
Bigeyes	224	194	\$475	\$2.45
Goatfish	4,536	4,087	\$13,431	\$3.29
Rudderfish	748	698	\$1,092	\$1.56

V.13

Table V.1.3 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Damselfish	171	156	\$308	\$1.98
Hawkfish	33	33	\$44	\$1.34
Wrasse	1,126	944	\$3,750	\$3.97
Parrotfish	2,360	2,131	\$5,384	\$2.53
Surgeon/tangs	3,973	3,810	\$5,682	\$1.49
Triggerfish	13	8	\$1	\$0.09
Filefish	1,964	1,964	\$1,846	\$0.94
Rainbow runner	117	91	\$143	\$1.58
Mahimahi (dolphin)	73,252	67,829	\$156,378	\$2.31
Barracudas	2,101	2,010	\$2,509	\$1.25
Wahoo	20,535	19,617	\$71,022	\$3.62
Tunas	936	936	\$9,884	\$10.56
Skipjack tuna	32,851	28,435	\$60,731	\$2.14
Yellowfin tuna	311,849	304,618	\$739,451	\$2.43
Albacore	94,314	93,981	\$157,137	\$1.67
Bigeye tuna	622,152	621,915	\$2,138,891	\$3.44
Kawakawa	445	289	\$419	\$1.45
Frigate tuna	129	80	\$161	\$2.01
Broadbill swordfish	395,481	395,481	\$1,060,911	\$2.68
Blue marlin	47,045	39,237	\$50,816	\$1.30
Black marlin	641	91	\$191	\$2.10
Striped marlin	57,404	55,095	\$102,815	\$1.87
Shortnose spearfish	54,702	53,428	\$58,158	\$1.09
Sailfish	70	0	\$0	\$0.00
Ocean sunfish	25	25	\$3	\$0.10
Ocean moonfish	75,000	75,000	\$141,430	\$1.89
Spiny lobster	1,142	1,041	\$12,523	\$12.03
Slipper lobster	9	5	\$37	\$7.35
Crabs	2,330	1,900	\$8,338	\$4.39
Shrimp (saltwater)	156	145	\$968	\$6.68
Octopus	1,427	1,219	\$3,593	\$2.95
Squid	60	59	\$227	\$3.85
Limpets (saltwater)	556	536	\$2,695	\$5.03
Precious corals	1,658	490	\$12,250	\$25.00
Sea cucumbers	8	8	\$64	\$8.00
Algae	496	420	\$1,819	\$4.33
TOTAL	2,072,464	2,018,320	\$5,427,749	\$2.69

V.14

Table V.1.4

Hawaii March 2000 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	88	88	\$218	\$2.47
Sharks	16,145	15,230	\$18,090	\$1.19
Shark fins	949	949	\$20,541	\$21.64
Eels	3	3	\$7	\$2.42
Bigeye scad (akule)	118,869	114,282	\$165,951	\$1.45
Mackerel scad	18,474	17,746	\$31,765	\$1.79
Leatherback	21	20	\$35	\$1.75
Ten pounder	12	12	\$14	\$1.20
Bonefish	181	162	\$165	\$1.02
Milkfish	136	136	\$186	\$1.37
Needlefish	12	10	\$17	\$1.71
Threadfin	76	68	\$280	\$4.12
Mullet	912	743	\$2,612	\$3.52
Pomfret	24,419	24,316	\$54,097	\$2.22
Snake mackerel	12,679	12,629	\$23,650	\$1.87
Jacks (misc)	2,079	1,344	\$3,166	\$2.36
Amberjack	2,069	38	\$43	\$1.13
Blue crevally	174	172	\$296	\$1.72
Pig-lipped ulua	1,796	1,594	\$3,771	\$2.37
Dobe ulua	158	158	\$277	\$1.75
Paapaa ulua	389	362	\$801	\$2.21
White ulua	432	304	\$671	\$2.21
Black ulua	5	5	\$10	\$2.00
Giant sea bass	5,237	4,805	\$18,571	\$3.86
Blue spot grouper	59	41	\$97	\$2.37
Snappers	58	58	\$185	\$3.19
Blue lined snapper	2,938	2,186	\$2,412	\$1.10
Ehu (red snapper)	5,141	4,918	\$17,705	\$3.60
Gindai (flower snapper)	497	422	\$1,528	\$3.62
Kalekale(pink snapper)	2,441	2,241	\$6,017	\$2.69
Lehi (silverjaw)	1,061	1,017	\$3,436	\$3.38
Onaga (red snapper)	20,598	20,075	\$97,018	\$4.83
Opakapaka (pink snapper)	21,114	19,727	\$88,692	\$4.50
Uku (gray snapper)	5,289	4,422	\$14,849	\$3.36
Porgy	56	46	\$126	\$2.73
Reef jacks	4	4	\$12	\$3.00
Squirrelfish	1,579	1,382	\$4,317	\$3.12
Scorpionfish	321	283	\$1,136	\$4.01
Mountain bass	427	340	\$1,118	\$3.29
Bigeyes	175	153	\$391	\$2.56
Goatfish	3,487	3,075	\$9,573	\$3.11

Table V.1.4 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Rudderfish	388	381	\$598	\$1.57
Damselfish	22	22	\$29	\$1.33
Hawkfish	32	32	\$40	\$1.24
Wrasse	533	424	\$1,524	\$3.59
Parrotfish	2,027	1,834	\$4,326	\$2.36
Surgeon/tangs	3,016	2,841	\$4,204	\$1.48
Filefish	3,714	3,712	\$2,909	\$0.78
Rainbow runner	145	111	\$198	\$1.79
Mahimahi (dolphin)	142,461	132,423	\$317,531	\$2.40
Barracudas	1,634	1,579	\$2,336	\$1.48
Wahoo	27,876	26,149	\$92,704	\$3.55
Tunas	571	561	\$5,069	\$9.04
Skipjack tuna	22,422	18,149	\$36,134	\$1.99
Yellowfin tuna	332,701	330,176	\$851,760	\$2.58
Albacore	67,194	66,929	\$139,484	\$2.08
Bigeye tuna	508,984	508,318	\$1,991,530	\$3.92
Kawakawa	378	204	\$259	\$1.27
Frigate tuna	34	31	\$62	\$2.00
Broadbill swordfish	703,142	703,067	\$2,045,699	\$2.91
Blue marlin	49,639	42,794	\$61,982	\$1.45
Black marlin	552	227	\$294	\$1.29
Striped marlin	34,128	32,603	\$77,360	\$2.37
Shortnose spearfish	39,413	36,549	\$53,441	\$1.46
Sailfish	143	143	\$207	\$1.44
Ocean moonfish	57,400	57,400	\$117,998	\$2.06
Spiny lobster	1,299	1,270	\$15,550	\$12.24
Slipper lobster	19	15	\$167	\$11.15
Crabs	2,912	2,267	\$10,213	\$4.50
Shrimp (saltwater)	184	164	\$1,084	\$6.61
Octopus	894	761	\$2,142	\$2.81
Limpets (saltwater)	872	687	\$3,260	\$4.74
Precious corals	806	0	\$0	\$0.00
Sea cucumbers	5	5	\$10	\$1.97
Algae	1,361	1,281	\$2,841	\$2.22
TOTAL	2,277,461	2,228,675	\$6,436,789	\$2.89

Table V.1.5

Hawaii April 2000 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	4	4	\$1	\$0.18
Sharks	7,176	7,161	\$10,220	\$1.43
Shark fins	1,071	1,071	\$26,063	\$24.34
Eels	53	44	\$61	\$1.38
Armorhead	8	0	\$0	\$0.00
Bigeye scad (akule)	111,951	108,056	\$166,847	\$1.54
Mackerel scad	11,491	11,168	\$22,478	\$2.01
Leatherback	19	16	\$31	\$1.91
Bonefish	563	563	\$602	\$1.07
Milkfish	6	6	\$8	\$1.25
Needlefish	12	12	\$17	\$1.38
Threadfin	2	2	\$10	\$4.83
Mullet	197	193	\$559	\$2.90
Pomfret	30,483	30,483	\$53,942	\$1.77
Snake mackerel	7,348	7,296	\$13,662	\$1.87
Jacks (misc)	710	407	\$814	\$2.00
Amberjack	1,602	932	\$949	\$1.02
Blue crevally	208	149	\$225	\$1.51
Pig-lipped ulua	1,664	1,611	\$3,410	\$2.12
Dobe ulua	41	41	\$83	\$2.02
Paapaa ulua	370	370	\$938	\$2.54
White ulua	201	181	\$257	\$1.42
Giant sea bass	1,958	1,865	\$7,996	\$4.29
Blue spot grouper	50	50	\$132	\$2.64
Snappers	42	42	\$138	\$3.28
Blue lined snapper	3,303	2,830	\$3,856	\$1.36
Ehu (red snapper)	3,024	2,932	\$13,241	\$4.52
Gindai (flower snapper)	272	225	\$798	\$3.55
Kalekale(pink snapper)	852	697	\$2,290	\$3.29
Lehi (silverjaw)	557	498	\$1,659	\$3.33
Onaga (red snapper)	16,796	15,942	\$85,501	\$5.36
Opakapaka (pink snapper)	8,762	8,394	\$51,726	\$6.16
Uku (gray snapper)	3,216	2,961	\$12,356	\$4.17
Porgy	72	72	\$196	\$2.72
Squirrelfish	1,661	1,575	\$5,113	\$3.25
Scorpionfish	241	192	\$745	\$3.88
Mountain bass	151	146	\$446	\$3.05
Bigeyes	137	137	\$366	\$2.67
Goatfish	2,752	2,569	\$8,564	\$3.33
Rudderfish	312	303	\$455	\$1.50
Damselfish	18	18	\$42	\$2.36

Table V.1.5 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Hawkfish	10	10	\$13	\$1.31
Wrasse	309	253	\$1,093	\$4.32
Parrotfish	1,583	1,490	\$3,934	\$2.64
Surgeon/tangs	4,809	4,613	\$6,590	\$1.43
Flounders	2	2	\$3	\$1.70
Filefish	4,542	4,429	\$2,987	\$0.67
Rainbow runner	84	70	\$113	\$1.61
Mahimahi (dolphin)	165,900	155,020	\$319,814	\$2.06
Barracudas	1,674	1,491	\$2,057	\$1.38
Wahoo	70,612	66,467	\$166,816	\$2.51
Tunas	375	375	\$4,198	\$11.19
Skipjack tuna	30,805	27,014	\$48,661	\$1.80
Yellowfin tuna	393,814	389,993	\$985,536	\$2.53
Albacore	141,805	141,595	\$253,265	\$1.79
Bigeye tuna	490,718	489,558	\$1,849,883	\$3.78
Kawakawa	732	450	\$939	\$2.09
Frigate tuna	33	0	\$0	\$0.00
Broadbill swordfish	791,794	791,794	\$2,073,917	\$2.62
Blue marlin	29,507	27,576	\$40,423	\$1.47
Black marlin	716	716	\$1,264	\$1.77
Striped marlin	40,440	39,752	\$89,978	\$2.26
Shortnose spearfish	23,353	22,153	\$31,235	\$1.41
Sailfish	78	78	\$98	\$1.26
Ocean sunfish	30	0	\$0	\$0.00
Ocean moonfish	22,122	22,122	\$59,011	\$2.67
Spiny lobster	843	790	\$9,219	\$11.67
Slipper lobster	30	30	\$309	\$10.31
Crabs	4,676	3,428	\$16,528	\$4.82
Shrimp (saltwater)	168	153	\$1,014	\$6.63
Octopus	853	700	\$2,076	\$2.97
Limpets (saltwater)	517	484	\$2,690	\$5.56
Precious corals	126	0	\$0	\$0.00
Sea cucumbers	2	2	\$16	\$8.00
Algae	1,604	1,574	\$3,601	\$2.29
TOTAL	2,444,022	2,405,396	\$6,474,078	\$2.69

Table V.1.6

Hawaii May 2000 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	30	30	\$54	\$1.81
Sharks	7,865	6,585	\$8,920	\$1.35
Shark fins	931	931	\$23,891	\$25.66
Eels	61	61	\$58	\$0.95
Alfonsin	5	0	\$0	\$0.00
Bigeye scad (akule)	115,784	106,645	\$158,917	\$1.49
Mackerel scad	15,781	14,623	\$28,534	\$1.95
Leatherback	12	11	\$20	\$1.83
Bonefish	656	111	\$119	\$1.07
Milkfish	11	11	\$10	\$0.92
Flying fish	1	1	\$1	\$1.00
Threadfin	71	41	\$138	\$3.36
Mullet	107	107	\$370	\$3.46
Pomfret	34,016	33,937	\$40,564	\$1.20
Snake mackerel	8,010	8,010	\$13,688	\$1.71
Jacks (misc)	2,510	1,701	\$3,759	\$2.21
Amberjack	1,527	445	\$383	\$0.86
Blue crevally	118	79	\$155	\$1.96
Pig-lipped ulua	1,938	1,791	\$3,360	\$1.88
Dobe ulua	5	5	\$10	\$2.00
Paapaa ulua	138	117	\$276	\$2.36
White ulua	579	491	\$477	\$0.97
Giant sea bass	2,241	2,219	\$8,564	\$3.86
Blue spot grouper	55	47	\$73	\$1.55
Snappers	79	79	\$231	\$2.92
Blue lined snapper	6,023	5,329	\$5,679	\$1.07
Ehu (red snapper)	4,912	4,777	\$17,933	\$3.75
Gindai (flower snapper)	668	621	\$2,034	\$3.28
Kalekale(pink snapper)	2,446	2,344	\$7,369	\$3.14
Lehi (silverjaw)	1,031	982	\$2,949	\$3.00
Onaga (red snapper)	15,304	14,907	\$74,131	\$4.97
Opakapaka (pink snapper)	13,219	12,906	\$60,047	\$4.65
Uku (gray snapper)	19,864	19,216	\$49,137	\$2.56
Porgy	316	313	\$409	\$1.31
Squirrelfish	3,242	2,973	\$9,848	\$3.31
Trumpetfish	2	2	\$4	\$1.80
Scorpionfish	253	195	\$613	\$3.15
Mountain bass	307	288	\$765	\$2.66
Bigeyes	225	207	\$569	\$2.75
Cardinalfish	2	2	\$2	\$0.80
Goatfish	2,737	2,396	\$8,381	\$3.50

Table V.1.6 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Rudderfish	1,344	1,305	\$2,521	\$1.93
Damselfish	32	29	\$64	\$2.22
Hawkfish	23	18	\$33	\$1.84
Wrasse	852	671	\$2,316	\$3.45
Parrotfish	2,808	2,720	\$6,909	\$2.54
Surgeon/tangs	6,351	6,160	\$8,809	\$1.43
Triggerfish	50	0	\$0	\$0.00
Filefish	4,160	4,157	\$2,643	\$0.64
Rainbow runner	307	307	\$492	\$1.60
Mahimahi (dolphin)	150,014	140,634	\$306,492	\$2.18
Barracudas	1,601	1,443	\$1,800	\$1.25
Wahoo	87,930	80,322	\$183,233	\$2.28
Skipjack tuna	47,863	43,203	\$71,526	\$1.66
Yellowfin tuna	236,249	230,868	\$582,757	\$2.52
Albacore	174,521	174,483	\$268,215	\$1.54
Bigeye tuna	739,240	733,965	\$2,219,722	\$3.02
Kawakawa	951	714	\$1,044	\$1.46
Broadbill swordfish	727,330	720,617	\$1,751,727	\$2.43
Blue marlin	42,051	38,449	\$51,079	\$1.33
Black marlin	394	394	\$711	\$1.80
Striped marlin	71,444	70,716	\$111,358	\$1.57
Shortnose spearfish	25,926	24,676	\$25,966	\$1.05
Sailfish	414	384	\$382	\$1.00
Ocean sunfish	8	8	\$1	\$0.10
Ocean moonfish	33,726	33,726	\$67,738	\$2.01
Spiny lobster	9	0	\$0	\$0.00
Crabs	556	556	\$2,165	\$3.89
Shrimp (saltwater)	182	173	\$1,146	\$6.62
Octopus	912	809	\$2,454	\$3.03
Squid	63	54	\$186	\$3.44
Limpets (saltwater)	1,085	741	\$3,681	\$4.97
Limpets (freshwater)	14	8	\$25	\$3.15
Precious corals	50	0	\$0	\$0.00
Algae	886	842	\$2,492	\$2.96
TOTAL	2,622,428	2,558,688	\$6,212,129	\$2.43

Table V.1.7

Hawaii June 2000 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	226	20	\$20	\$1.00
Sharks	16,666	8,357	\$10,724	\$1.28
Shark fins	875	875	\$19,041	\$21.76
Eels	83	83	\$103	\$1.24
Bigeye scad (akule)	134,080	127,228	\$180,971	\$1.42
Mackerel scad	18,535	17,972	\$33,904	\$1.89
Leatherback	48	47	\$94	\$2.00
Ten pounder	8	8	\$12	\$1.50
Bonefish	389	311	\$305	\$0.98
Milkfish	21	21	\$19	\$0.90
Needlefish	28	28	\$43	\$1.54
Threadfin	21	21	\$67	\$3.17
Mullet	814	770	\$2,473	\$3.21
Pomfret	21,349	21,280	\$37,902	\$1.78
Snake mackerel	6,763	6,763	\$11,376	\$1.68
Jacks (misc)	2,182	1,201	\$2,296	\$1.91
Amberjack	1,633	234	\$254	\$1.09
Blue crevally	413	382	\$899	\$2.35
Pig-lipped ulua	4,682	3,841	\$7,034	\$1.83
Paapaa ulua	470	470	\$1,211	\$2.58
White ulua	426	183	\$291	\$1.59
Black ulua	377	348	\$298	\$0.86
Giant sea bass	3,858	3,587	\$13,106	\$3.65
Blue spot grouper	58	43	\$92	\$2.14
Snappers	233	218	\$686	\$3.14
Blue lined snapper	5,187	4,267	\$4,635	\$1.09
Ehu (red snapper)	3,713	3,649	\$13,349	\$3.66
Gindai (flower snapper)	497	473	\$1,630	\$3.45
Kalekale(pink snapper)	1,255	1,117	\$3,406	\$3.05
Lehi (silverjaw)	376	366	\$1,033	\$2.82
Onaga (red snapper)	8,486	7,923	\$43,891	\$5.54
Opakapaka (pink snapper)	12,146	11,702	\$54,551	\$4.66
Uku (gray snapper)	22,594	21,343	\$44,349	\$2.08
Porgy	100	100	\$286	\$2.86
Squirrelfish	5,093	4,963	\$16,373	\$3.30
Scorpionfish	260	238	\$807	\$3.39
Mountain bass	128	124	\$315	\$2.54
Bigeyes	262	220	\$482	\$2.19
Goatfish	2,954	2,569	\$7,870	\$3.06
Rudderfish	3,372	3,330	\$3,917	\$1.18
Damselfish	68	66	\$147	\$2.23

Table V.1.7 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Hawkfish	40	38	\$79	\$2.09
Wrasse	453	371	\$1,252	\$3.37
Parrotfish	2,772	2,674	\$6,211	\$2.32
Surgeon/tangs	10,853	10,626	\$13,500	\$1.27
Triggerfish	4	0	\$0	\$0.00
Filefish	2,235	2,235	\$1,828	\$0.82
Rainbow runner	686	587	\$956	\$1.63
Mahimahi (dolphin)	127,381	115,851	\$230,080	\$1.99
Barracudas	3,022	2,801	\$2,964	\$1.06
Wahoo	82,317	73,067	\$185,621	\$2.54
Tunas	12	12	\$18	\$1.50
Skipjack tuna	63,941	55,473	\$74,008	\$1.33
Yellowfin tuna	378,807	367,283	\$911,121	\$2.48
Albacore	470,339	469,844	\$407,060	\$0.87
Bigeye tuna	567,549	564,016	\$1,653,437	\$2.93
Kawakawa	1,277	986	\$1,437	\$1.46
Broadbill swordfish	408,325	408,325	\$1,421,494	\$3.48
Blue marlin	63,201	59,194	\$79,691	\$1.35
Black marlin	1,904	1,791	\$2,063	\$1.15
Striped marlin	64,126	63,589	\$106,084	\$1.67
Shortnose spearfish	28,526	27,538	\$28,437	\$1.03
Sailfish	487	429	\$499	\$1.16
Ocean moonfish	40,363	40,363	\$74,017	\$1.83
Crabs	302	302	\$1,188	\$3.93
Octopus	989	790	\$2,681	\$3.39
Squid	73	53	\$181	\$3.42
Limpets (saltwater)	1,211	955	\$3,720	\$3.90
Limpets (freshwater)	8	8	\$25	\$3.08
Precious corals	264	0	\$0	\$0.00
Sea cucumbers	22	22	\$88	\$4.00
Algae	1,531	1,471	\$4,333	\$2.95
TOTAL	2,603,749	2,527,435	\$5,734,333	\$2.27

V.22

Table V.1.8

Hawaii July 2000 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	20	20	\$41	\$2.07
Sharks	6,491	6,091	\$7,662	\$1.26
Shark fins	74	74	\$1,848	\$24.97
Eels	49	42	\$71	\$1.69
Bigeye scad (akule)	82,769	78,447	\$118,404	\$1.51
Mackerel scad	15,748	15,436	\$28,984	\$1.88
Leatherback	9	0	\$0	\$0.00
Ten pounder	10	10	\$8	\$0.75
Bonefish	3,276	3,269	\$3,323	\$1.02
Milkfish	227	222	\$226	\$1.02
Flying fish	3	3	\$0	\$0.08
Mullet	207	207	\$790	\$3.82
Pomfret	21,398	21,149	\$39,404	\$1.86
Snake mackerel	7,065	7,035	\$14,430	\$2.05
Jacks (misc)	1,740	1,337	\$2,397	\$1.79
Amberjack	1,576	1,284	\$947	\$0.74
Blue crevally	45	45	\$105	\$2.34
Pig-lipped ulua	7,332	4,955	\$11,531	\$2.33
Paapaa ulua	46	41	\$71	\$1.73
White ulua	708	660	\$781	\$1.18
Giant sea bass	2,265	1,909	\$6,939	\$3.64
Blue spot grouper	17	2	\$6	\$3.20
Snappers	166	148	\$548	\$3.70
Blue lined snapper	3,490	2,848	\$3,040	\$1.07
Ehu (red snapper)	1,695	1,614	\$8,101	\$5.02
Gindai (flower snapper)	169	141	\$483	\$3.43
Kalekale(pink snapper)	534	504	\$1,739	\$3.45
Lehi (silverjaw)	566	110	\$334	\$3.04
Onaga (red snapper)	8,779	8,178	\$43,606	\$5.33
Opakapaka (pink snapper)	3,600	3,469	\$16,723	\$4.82
Uku (gray snapper)	7,217	7,114	\$21,241	\$2.99
Porgy	92	92	\$230	\$2.50
Squirrelfish	2,844	2,425	\$7,960	\$3.28
Trumpetfish	1	0	\$0	\$0.00
Scorpionfish	303	273	\$1,231	\$4.51
Mountain bass	126	116	\$391	\$3.37
Bigeyes	349	334	\$866	\$2.59
Goatfish	2,336	2,201	\$7,694	\$3.50
Rudderfish	450	411	\$571	\$1.39
Damselfish	19	19	\$39	\$2.07
Hawkfish	144	142	\$129	\$0.91

Table V.1.8 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Wrasse	228	151	\$463	\$3.07
Parrotfish	2,048	2,024	\$5,270	\$2.60
Surgeon/tangs	6,996	6,907	\$9,420	\$1.36
Filefish	2,609	2,605	\$2,195	\$0.84
Rainbow runner	175	144	\$204	\$1.42
Mahimahi (dolphin)	145,307	137,912	\$221,711	\$1.61
Barracudas	1,392	1,267	\$1,462	\$1.15
Wahoo	70,078	63,239	\$175,918	\$2.78
Skipjack tuna	346,695	334,728	\$422,674	\$1.26
Yellowfin tuna	599,280	581,899	\$1,359,275	\$2.34
Albacore	119,214	118,050	\$164,995	\$1.40
Bigeye tuna	418,956	418,806	\$1,350,838	\$3.23
Kawakawa	774	425	\$617	\$1.45
Frigate tuna	13	0	\$0	\$0.00
Billfish	47	0	\$0	\$0.00
Broadbill swordfish	259,142	258,937	\$828,264	\$3.20
Blue marlin	117,324	105,868	\$115,587	\$1.09
Black marlin	2,898	1,686	\$2,172	\$1.29
Striped marlin	35,171	34,911	\$56,563	\$1.62
Shortnose spearfish	11,749	10,903	\$17,036	\$1.56
Sailfish	661	596	\$762	\$1.28
Ocean moonfish	32,232	32,232	\$63,169	\$1.96
Spiny lobster	9	0	\$0	\$0.00
Crabs	1,095	1,095	\$3,764	\$3.44
Shrimp (freshwater)	7	0	\$0	\$0.00
Shrimp (saltwater)	3	0	\$0	\$0.00
Octopus	2,471	2,131	\$6,246	\$2.93
Squid	104	104	\$410	\$3.94
Limpets (saltwater)	1,016	928	\$4,393	\$4.73
Precious corals	160	0	\$0	\$0.00
Sea cucumbers	31	31	\$78	\$2.50
Algae	1,033	993	\$2,237	\$2.25
TOTAL	2,362,873	2,290,949	\$5,168,618	\$2.26

V.24

Table V.1.9

Hawaii August 2000 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	176	166	\$69	\$0.42
Sharks	7,573	6,873	\$10,499	\$1.53
Shark fins	125	125	\$993	\$7.94
Eels	77	77	\$84	\$1.10
Bigeye scad (akule)	54,865	43,039	\$69,215	\$1.61
Mackerel scad	27,153	26,068	\$44,915	\$1.72
Leatherback	14	14	\$16	\$1.17
Ten pounder	88	88	\$65	\$0.74
Bonefish	607	600	\$626	\$1.04
Milkfish	1,201	1,201	\$1,051	\$0.87
Needlefish	14	14	\$9	\$0.65
Threadfin	1	0	\$0	\$0.00
Mullet	1,904	1,723	\$4,998	\$2.90
Pomfret	18,532	18,517	\$40,356	\$2.18
Snake mackerel	4,025	4,010	\$8,122	\$2.03
Jacks (misc)	2,418	1,682	\$3,062	\$1.82
Amberjack	1,107	38	\$36	\$0.94
Blue crevally	338	226	\$605	\$2.68
Pig-lipped ulua	3,089	2,343	\$4,572	\$1.95
Paapaa ulua	261	204	\$308	\$1.51
White ulua	292	286	\$544	\$1.90
Black ulua	66	66	\$137	\$2.07
Giant sea bass	3,272	3,133	\$12,792	\$4.08
Blue spot grouper	10	4	\$13	\$3.25
Snappers	135	117	\$463	\$3.95
Blue lined snapper	5,167	4,475	\$4,457	\$1.00
Ehu (red snapper)	2,504	2,316	\$9,253	\$4.00
Gindai (flower snapper)	267	236	\$680	\$2.88
Kalekale(pink snapper)	1,053	947	\$3,424	\$3.62
Lehi (silverjaw)	156	149	\$437	\$2.93
Onaga (red snapper)	12,313	11,926	\$52,707	\$4.42
Opakapaka (pink snapper)	10,288	9,923	\$45,487	\$4.58
Uku (gray snapper)	18,323	17,803	\$42,307	\$2.38
Porgy	603	580	\$1,726	\$2.98
Reef jacks	45	45	\$150	\$3.32
Squirrelfish	4,374	3,934	\$12,991	\$3.30
Trumpetfish	7	2	\$2	\$0.75
Scorpionfish	221	192	\$826	\$4.30
Mountain bass	202	159	\$596	\$3.75
Bigeyes	349	309	\$897	\$2.90
Cardinalfish	15	0	\$0	\$0.00

Table V.1.9 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Goatfish	3,051	2,735	\$8,341	\$3.05
Rudderfish	1,338	1,318	\$1,620	\$1.23
Damselfish	24	24	\$30	\$1.26
Hawkfish	32	23	\$33	\$1.43
Tilapia	174	174	\$174	\$1.00
Wrasse	422	331	\$1,228	\$3.71
Parrotfish	2,889	2,867	\$6,540	\$2.28
Surgeon/tangs	11,599	11,488	\$14,441	\$1.26
Flounders	8	8	\$9	\$1.09
Triggerfish	8	0	\$0	\$0.00
Filefish	1,615	1,355	\$1,219	\$0.90
Rainbow runner	228	147	\$216	\$1.47
Mahimahi (dolphin)	141,965	131,607	\$277,679	\$2.11
Barracudas	753	547	\$744	\$1.36
Wahoo	76,712	69,989	\$183,171	\$2.62
Skipjack tuna	140,034	133,568	\$228,417	\$1.71
Yellowfin tuna	656,113	640,739	\$1,750,261	\$2.73
Albacore	191,407	189,794	\$296,200	\$1.56
Bigeye tuna	302,413	302,299	\$1,137,895	\$3.76
Kawakawa	627	493	\$699	\$1.42
Frigate tuna	22	22	\$26	\$1.18
Broadbill swordfish	84,543	84,459	\$290,623	\$3.44
Blue marlin	120,862	107,208	\$140,387	\$1.31
Black marlin	1,291	1,291	\$1,813	\$1.40
Striped marlin	30,987	30,746	\$56,688	\$1.84
Shortnose spearfish	10,692	10,104	\$16,581	\$1.64
Sailfish	880	805	\$1,377	\$1.71
Ocean moonfish	46,353	46,153	\$76,293	\$1.65
Crabs	1,467	1,366	\$4,669	\$3.42
Shrimp (saltwater)	4	0	\$0	\$0.00
Octopus	1,680	1,330	\$3,953	\$2.97
Squid	659	619	\$1,406	\$2.27
Limpets (saltwater)	729	687	\$3,450	\$5.02
Precious corals	540	0	\$0	\$0.00
Sea cucumbers	11	11	\$28	\$2.50
Algae	510	481	\$2,611	\$5.43
TOTAL	2,015,872	1,938,398	\$4,888,309	\$2.52

Table V.1.10

Hawaii September 2000 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	36	24	\$35	\$1.46
Sharks	5,884	5,804	\$8,607	\$1.48
Eels	97	97	\$96	\$0.99
Bigeye scad (akule)	34,875	33,630	\$62,796	\$1.87
Mackerel scad	32,250	31,377	\$52,844	\$1.68
Leatherback	76	74	\$141	\$1.91
Ten pounder	59	59	\$61	\$1.03
Bonefish	538	509	\$473	\$0.93
Milkfish	185	185	\$182	\$0.98
Flying fish	1	1	\$1	\$1.25
Needlefish	97	97	\$132	\$1.36
Threadfin	81	73	\$343	\$4.70
Mullet	1,345	1,329	\$3,794	\$2.85
Pomfret	11,552	11,400	\$18,964	\$1.66
Snake mackerel	2,474	2,474	\$4,990	\$2.02
Jacks (misc)	2,503	1,994	\$4,093	\$2.05
Amberjack	2,046	183	\$203	\$1.11
Blue crevally	312	246	\$479	\$1.95
Pig-lipped ulua	1,464	1,410	\$2,005	\$1.42
Dobe ulua	2	2	\$5	\$2.40
Paapaa ulua	507	499	\$955	\$1.91
White ulua	544	389	\$758	\$1.95
Giant sea bass	3,653	3,628	\$12,293	\$3.39
Blue spot grouper	83	31	\$68	\$2.19
Snappers	165	110	\$356	\$3.23
Blue lined snapper	4,023	3,378	\$3,366	\$1.00
Ehu (red snapper)	3,450	3,272	\$11,590	\$3.54
Gindai (flower snapper)	544	493	\$1,439	\$2.92
Kalekale(pink snapper)	1,694	1,574	\$5,018	\$3.19
Lehi (silverjaw)	766	603	\$2,030	\$3.37
Onaga (red snapper)	9,998	9,706	\$47,723	\$4.92
Opakapaka (pink snapper)	15,566	14,204	\$61,103	\$4.30
Uku (gray snapper)	15,525	15,018	\$28,790	\$1.92
Porgy	247	215	\$631	\$2.94
Reef jacks	16	16	\$26	\$1.61
Squirrelfish	5,384	4,920	\$15,027	\$3.05
Trumpetfish	3	3	\$2	\$0.62
Scorpionfish	369	340	\$1,155	\$3.40
Mountain bass	423	366	\$1,355	\$3.70
Bigeyes	265	210	\$556	\$2.65
Cardinalfish	2	2	\$2	\$1.00

Table V.1.10 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Goatfish	2,643	2,322	\$7,325	\$3.15
Rudderfish	501	458	\$678	\$1.48
Damselfish	66	66	\$120	\$1.82
Hawkfish	56	56	\$106	\$1.89
Wrasse	1,203	1,055	\$4,649	\$4.41
Parrotfish	1,907	1,810	\$4,224	\$2.33
Surgeon/tangs	7,859	7,580	\$10,450	\$1.38
Flounders	5	5	\$4	\$0.80
Triggerfish	35	25	\$40	\$1.60
Filefish	66	54	\$50	\$0.92
Rainbow runner	845	593	\$975	\$1.64
Mahimahi (dolphin)	92,889	87,237	\$213,139	\$2.44
Barracudas	938	817	\$1,080	\$1.32
Wahoo	55,379	50,318	\$131,358	\$2.61
Tunas	25	11	\$21	\$1.95
Skipjack tuna	100,989	94,633	\$149,687	\$1.58
Yellowfin tuna	477,443	470,766	\$1,301,358	\$2.76
Albacore	122,104	121,976	\$209,913	\$1.72
Bigeye tuna	197,827	195,189	\$727,259	\$3.73
Kawakawa	797	528	\$604	\$1.14
Frigate tuna	9	4	\$2	\$0.50
Broadbill swordfish	3,456	3,456	\$12,787	\$3.70
Blue marlin	141,601	131,390	\$161,237	\$1.23
Black marlin	2,167	2,167	\$2,608	\$1.20
Striped marlin	4,847	4,797	\$10,941	\$2.28
Shortnose spearfish	7,537	7,325	\$12,796	\$1.75
Sailfish	572	432	\$639	\$1.48
Ocean moonfish	37,786	37,786	\$57,995	\$1.53
Spiny lobster	2,388	1,839	\$20,873	\$11.35
Slipper lobster	29	29	\$323	\$11.12
Crabs	4,277	3,514	\$13,531	\$3.85
Shrimp (saltwater)	28	16	\$142	\$8.88
Octopus	3,715	2,725	\$7,918	\$2.91
Squid	2,189	1,762	\$3,732	\$2.12
Limpets (saltwater)	619	560	\$3,211	\$5.73
Precious corals	1,180	0	\$0	\$0.00
Sea cucumbers	19	19	\$48	\$2.50
Algae	700	669	\$1,627	\$2.43
TOTAL	1,435,800	1,383,934	\$3,427,934	\$2.48

Table V.1.11

Hawaii October 2000 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	128	125	\$141	\$1.13
Sharks	5,831	5,681	\$7,087	\$1.25
Eels	40	40	\$62	\$1.55
Alfonsin	8	8	\$22	\$2.75
Bigeye scad (akule)	21,753	21,088	\$42,524	\$2.02
Mackerel scad	30,919	30,120	\$51,879	\$1.72
Leatherback	38	32	\$54	\$1.69
Ten pounder	30	30	\$25	\$0.84
Bonefish	119	92	\$118	\$1.28
Milkfish	40	38	\$38	\$1.00
Needlefish	80	80	\$156	\$1.95
Threadfin	79	75	\$342	\$4.56
Mullet	519	519	\$1,536	\$2.96
Pomfret	13,654	13,654	\$26,198	\$1.92
Snake mackerel	2,421	2,421	\$4,034	\$1.67
Jacks (misc)	1,905	1,684	\$3,498	\$2.08
Amberjack	1,149	147	\$134	\$0.91
Blue crevally	387	240	\$392	\$1.63
Pig-lipped ulua	2,928	2,844	\$4,177	\$1.47
Dobe ulua	126	126	\$278	\$2.20
Paapaa ulua	94	88	\$229	\$2.61
White ulua	245	211	\$374	\$1.77
Giant sea bass	3,585	3,410	\$12,257	\$3.59
Blue spot grouper	36	0	\$0	\$0.00
Snappers	146	99	\$331	\$3.35
Blue lined snapper	3,958	3,268	\$3,041	\$0.93
Ehu (red snapper)	2,452	2,093	\$8,221	\$3.93
Gindai (flower snapper)	336	296	\$886	\$2.99
Kalekale(pink snapper)	1,533	1,347	\$4,849	\$3.60
Lehi (silverjaw)	460	308	\$1,018	\$3.30
Onaga (red snapper)	8,929	8,768	\$44,193	\$5.04
Opakapaka (pink snapper)	17,546	16,505	\$69,808	\$4.23
Uku (gray snapper)	5,623	5,092	\$14,240	\$2.80
Porgy	180	180	\$506	\$2.81
Squirrelfish	4,158	3,963	\$12,430	\$3.14
Trumpetfish	2	2	\$2	\$1.16
Scorpionfish	192	174	\$639	\$3.67
Mountain bass	162	139	\$562	\$4.04
Bigeyes	282	242	\$558	\$2.30
Goatfish	2,750	2,543	\$8,692	\$3.42
Rudderfish	218	215	\$317	\$1.47

Table V.1.11 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Damselfish	11	11	\$16	\$1.49
Hawkfish	37	35	\$60	\$1.73
Wrasse	497	392	\$1,673	\$4.27
Parrotfish	3,316	3,213	\$7,573	\$2.36
Surgeon/tangs	9,143	9,092	\$10,825	\$1.19
Flounders	9	9	\$11	\$1.25
Triggerfish	7	0	\$0	\$0.00
Filefish	2,483	2,457	\$2,297	\$0.93
Pufferfish	2	0	\$0	\$0.00
Rainbow runner	348	264	\$429	\$1.62
Mahimahi (dolphin)	130,111	123,734	\$264,473	\$2.14
Barracudas	1,230	1,219	\$1,449	\$1.19
Wahoo	75,411	70,319	\$137,460	\$1.95
Tunas	7	7	\$10	\$1.46
Skipjack tuna	116,955	113,223	\$153,971	\$1.36
Yellowfin tuna	351,601	347,876	\$962,826	\$2.77
Albacore	238,281	238,269	\$321,819	\$1.35
Bigeye tuna	366,657	361,939	\$1,218,196	\$3.37
Kawakawa	1,249	662	\$952	\$1.44
Frigate tuna	16	16	\$28	\$1.77
Broadbill swordfish	7,342	7,342	\$21,427	\$2.92
Blue marlin	150,932	142,850	\$134,829	\$0.94
Black marlin	903	903	\$1,043	\$1.16
Striped marlin	24,147	23,807	\$40,748	\$1.71
Shortnose spearfish	12,299	12,033	\$12,855	\$1.07
Sailfish	913	913	\$1,153	\$1.26
Ocean moonfish	68,298	68,298	\$73,294	\$1.07
Spiny lobster	234	209	\$2,080	\$9.95
Slipper lobster	34	34	\$377	\$11.10
Crabs	1,406	1,341	\$4,680	\$3.49
Octopus	3,253	2,702	\$7,626	\$2.82
Squid	1,485	1,110	\$2,732	\$2.46
Limpets (saltwater)	589	584	\$2,969	\$5.08
Precious corals	1,485	300	\$7,500	\$25.00
Sea cucumbers	48	48	\$71	\$1.48
Algae	791	715	\$3,223	\$4.51
TOTAL	1,706,571	1,663,913	\$3,726,521	\$2.24

Table V.1.12

Hawaii November 2000 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	151	150	\$69	\$0.46
Sharks	6,534	5,993	\$5,460	\$0.91
Eels	15	15	\$19	\$1.27
Bigeye scad (akule)	95,386	92,626	\$138,902	\$1.50
Mackerel scad	26,332	25,395	\$44,987	\$1.77
Leatherback	24	24	\$54	\$2.27
Ten pounder	10	10	\$9	\$0.90
Bonefish	231	172	\$172	\$1.00
Milkfish	3	2	\$3	\$1.25
Needlefish	20	20	\$21	\$1.04
Threadfin	88	88	\$381	\$4.33
Mullet	717	708	\$2,305	\$3.26
Pomfret	20,300	20,192	\$25,591	\$1.27
Snake mackerel	4,250	4,250	\$7,298	\$1.72
Jacks (misc)	1,451	1,046	\$1,993	\$1.91
Amberjack	1,895	86	\$93	\$1.08
Blue crevally	191	124	\$376	\$3.03
Pig-lipped ulua	5,249	4,964	\$4,614	\$0.93
Dobe ulua	886	886	\$1,393	\$1.57
Paapaa ulua	487	393	\$613	\$1.56
White ulua	498	496	\$899	\$1.81
Black ulua	20	20	\$39	\$1.95
Giant sea bass	3,029	2,830	\$8,413	\$2.97
Blue spot grouper	58	50	\$112	\$2.23
Snappers	81	66	\$205	\$3.11
Blue lined snapper	2,949	2,330	\$2,269	\$0.97
Ehu (red snapper)	2,411	2,147	\$8,132	\$3.79
Gindai (flower snapper)	395	330	\$1,054	\$3.19
Kalekale(pink snapper)	1,226	1,117	\$3,609	\$3.23
Lehi (silverjaw)	883	697	\$2,539	\$3.64
Onaga (red snapper)	7,435	7,012	\$36,873	\$5.26
Opakapaka (pink snapper)	15,565	14,865	\$63,701	\$4.29
Uku (gray snapper)	3,833	3,460	\$9,453	\$2.73
Porgy	273	238	\$681	\$2.86
Squirrelfish	2,595	2,445	\$7,649	\$3.13
Trumpetfish	3	3	\$3	\$1.00
Scorpionfish	161	125	\$454	\$3.63
Mountain bass	285	240	\$785	\$3.27
Bigeyes	248	221	\$555	\$2.51
Cardinalfish	1	1	\$1	\$1.00
Goatfish	3,272	3,011	\$9,743	\$3.24

Table V.1.12 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Rudderfish	464	452	\$666	\$1.47
Damselfish	101	57	\$104	\$1.82
Hawkfish	20	20	\$26	\$1.31
Tilapia	83	83	\$83	\$1.00
Wrasse	601	498	\$2,652	\$5.33
Parrotfish	2,086	1,963	\$4,674	\$2.38
Surgeon/tangs	5,500	5,422	\$7,463	\$1.38
Flounders	5	5	\$5	\$1.08
Filefish	827	812	\$746	\$0.92
Rainbow runner	447	321	\$575	\$1.79
Mahimahi (dolphin)	107,608	100,314	\$164,134	\$1.64
Barracudas	1,347	1,207	\$1,386	\$1.15
Wahoo	38,437	36,622	\$83,321	\$2.28
Tunas	435	435	\$1,144	\$2.63
Skipjack tuna	65,341	63,391	\$89,060	\$1.40
Yellowfin tuna	363,766	360,692	\$843,279	\$2.34
Albacore	86,902	86,794	\$144,653	\$1.67
Bigeye tuna	400,470	397,883	\$1,324,148	\$3.33
Kawakawa	601	245	\$318	\$1.30
Frigate tuna	43	28	\$53	\$1.89
Billfish	574	574	\$405	\$0.71
Broadbill swordfish	13,735	13,735	\$28,926	\$2.11
Blue marlin	77,487	72,137	\$91,883	\$1.27
Black marlin	543	543	\$738	\$1.36
Striped marlin	20,714	20,504	\$37,022	\$1.81
Shortnose spearfish	13,216	13,147	\$13,538	\$1.03
Sailfish	708	658	\$799	\$1.21
Ocean moonfish	73,860	73,855	\$71,974	\$0.97
Spiny lobster	834	792	\$7,798	\$9.85
Slipper lobster	21	21	\$152	\$7.22
Crabs	1,848	1,723	\$5,605	\$3.25
Shrimp (freshwater)	20	20	\$144	\$7.21
Octopus	2,920	1,802	\$5,115	\$2.84
Squid	182	164	\$539	\$3.28
Limpets (saltwater)	764	720	\$2,888	\$4.01
Precious corals	1,100	1,100	\$27,500	\$25.00
Sea cucumbers	50	50	\$277	\$5.55
Algae	413	352	\$2,173	\$6.17
TOTAL	1,493,514	1,457,989	\$3,357,487	\$2.30

Table V.1.13

Hawaii December 2000 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	251	131	\$79	\$0.60
Sharks	13,761	13,592	\$9,583	\$0.71
Eels	8	8	\$9	\$1.11
Bigeye scad (akule)	115,084	106,620	\$146,937	\$1.38
Mackerel scad	17,529	16,596	\$27,136	\$1.64
Leatherback	17	17	\$23	\$1.38
Bonefish	374	374	\$377	\$1.01
Needlefish	205	196	\$201	\$1.02
Threadfin	72	56	\$229	\$4.08
Mullet	98	98	\$427	\$4.36
Pomfret	19,428	19,284	\$29,724	\$1.54
Snake mackerel	12,015	12,015	\$15,234	\$1.27
Jacks (misc)	3,338	2,755	\$6,095	\$2.21
Amberjack	4,347	699	\$827	\$1.18
Blue crevally	221	182	\$351	\$1.93
Pig-lipped ulua	3,935	3,789	\$6,952	\$1.83
Dobe ulua	161	150	\$298	\$1.98
Paapaa ulua	446	282	\$470	\$1.67
White ulua	1,604	1,398	\$1,396	\$1.00
Black ulua	162	153	\$201	\$1.32
Giant sea bass	5,736	5,501	\$17,909	\$3.26
Blue spot grouper	30	17	\$56	\$3.29
Snappers	154	125	\$387	\$3.09
Blue lined snapper	5,222	4,265	\$4,383	\$1.03
Ehu (red snapper)	6,682	5,677	\$23,034	\$4.06
Gindai (flower snapper)	1,111	958	\$2,881	\$3.01
Kalekale(pink snapper)	3,979	3,486	\$9,527	\$2.73
Lehi (silverjaw)	2,806	2,548	\$7,996	\$3.14
Onaga (red snapper)	20,907	18,645	\$102,142	\$5.48
Opakapaka (pink snapper)	35,867	32,637	\$137,884	\$4.22
Uku (gray snapper)	10,881	9,948	\$29,098	\$2.93
Porgy	314	253	\$757	\$2.99
Squirrelfish	2,250	2,130	\$6,265	\$2.94
Trumpetfish	4	1	\$1	\$1.00
Scorpionfish	450	386	\$1,351	\$3.50
Mountain bass	225	217	\$888	\$4.09
Bigeyes	222	221	\$540	\$2.44
Cardinalfish	1	1	\$1	\$1.00
Goatfish	5,140	4,400	\$13,729	\$3.12
Rudderfish	470	461	\$743	\$1.61
Damselfish	36	36	\$68	\$1.89

Table V.1.13 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Hawkfish	46	46	\$80	\$1.73
Wrasse	1,162	805	\$3,215	\$3.99
Parrotfish	2,537	2,374	\$6,010	\$2.53
Surgeon/tangs	8,798	8,667	\$11,621	\$1.34
Flounders	3	3	\$3	\$0.83
Filefish	326	303	\$271	\$0.89
Rainbow runner	139	135	\$190	\$1.41
Mahimahi (dolphin)	59,307	55,248	\$102,979	\$1.86
Barracudas	2,407	2,337	\$3,378	\$1.45
Wahoo	40,430	38,788	\$88,076	\$2.27
Tunas	257	203	\$545	\$2.68
Skipjack tuna	62,706	59,829	\$55,499	\$0.93
Yellowfin tuna	407,482	396,889	\$1,160,863	\$2.92
Albacore	276,520	276,520	\$341,879	\$1.24
Bigeye tuna	493,898	492,136	\$2,035,719	\$4.14
Kawakawa	881	526	\$745	\$1.42
Frigate tuna	19	0	\$0	\$0.00
Broadbill swordfish	10,307	10,307	\$28,939	\$2.81
Blue marlin	42,772	40,911	\$59,723	\$1.46
Black marlin	326	326	\$245	\$0.75
Striped marlin	50,833	50,646	\$94,450	\$1.86
Shortnose spearfish	31,377	30,997	\$28,164	\$0.91
Sailfish	371	371	\$369	\$1.00
Ocean sunfish	9	9	\$1	\$0.10
Ocean moonfish	73,465	73,465	\$83,550	\$1.14
Spiny lobster	2,260	2,178	\$26,515	\$12.17
Slipper lobster	3	3	\$25	\$8.25
Crabs	2,340	1,553	\$5,186	\$3.34
Octopus	2,467	2,292	\$6,450	\$2.81
Squid	155	155	\$233	\$1.51
Limpets (saltwater)	1,221	1,064	\$4,533	\$4.26
Precious corals	1,300	1,300	\$32,500	\$25.00
Sea cucumbers	17	17	\$164	\$9.65
Algae	681	574	\$3,223	\$5.61
TOTAL	1,872,365	1,821,285	\$4,791,528	\$2.63

Figure V.1.1

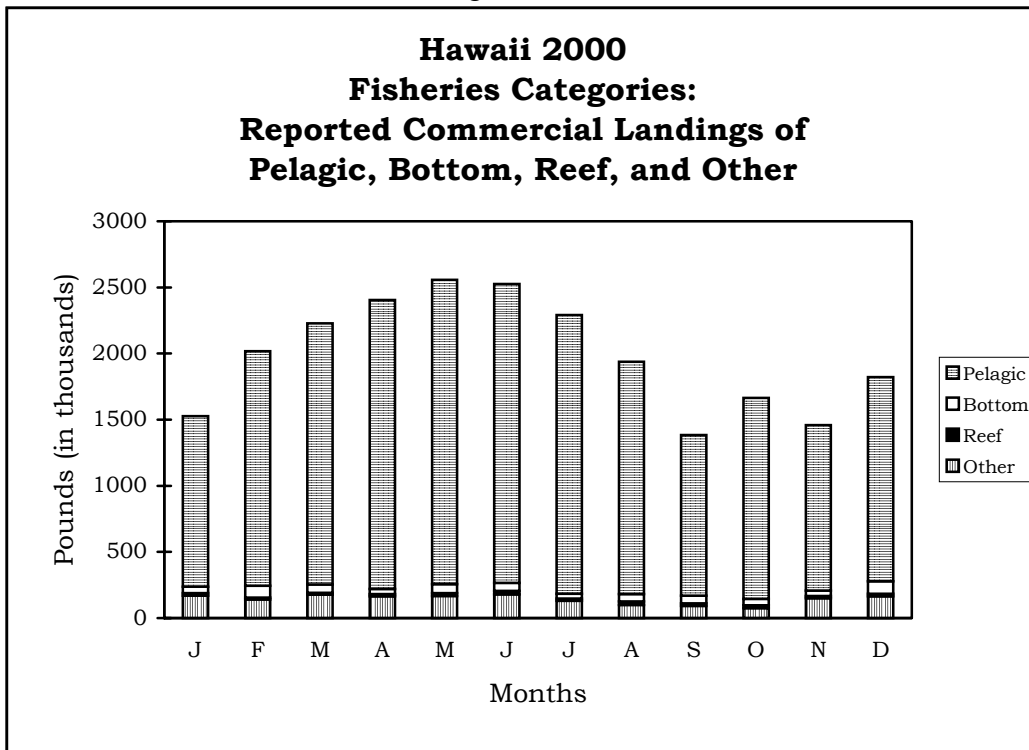


Figure V.1.2

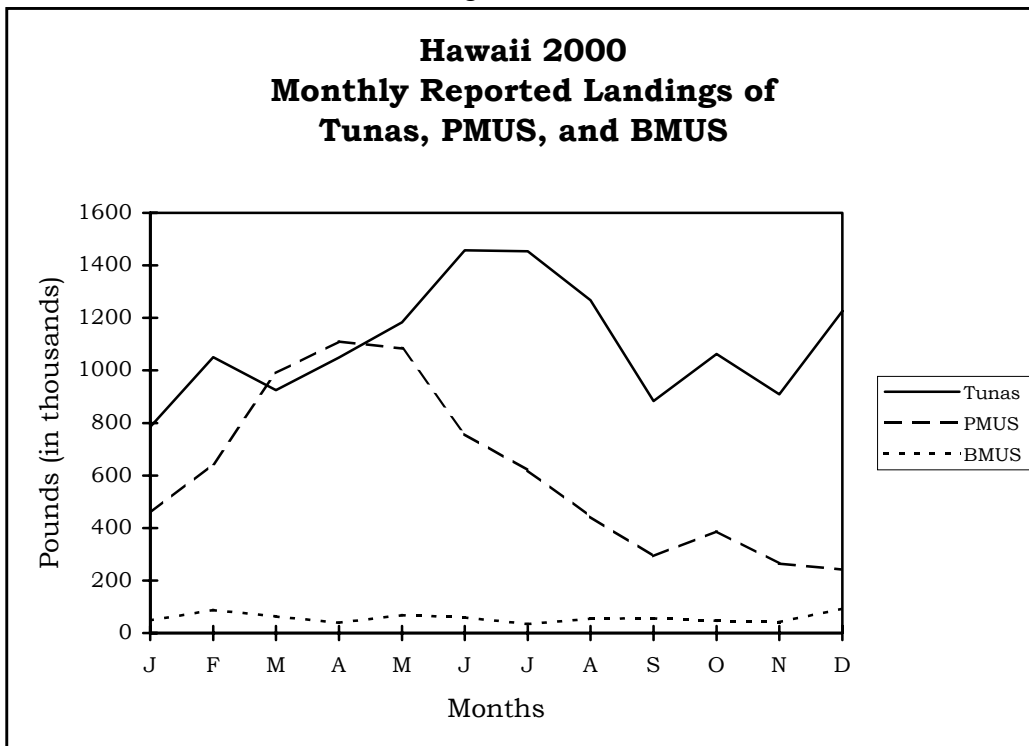


Figure V.1.3

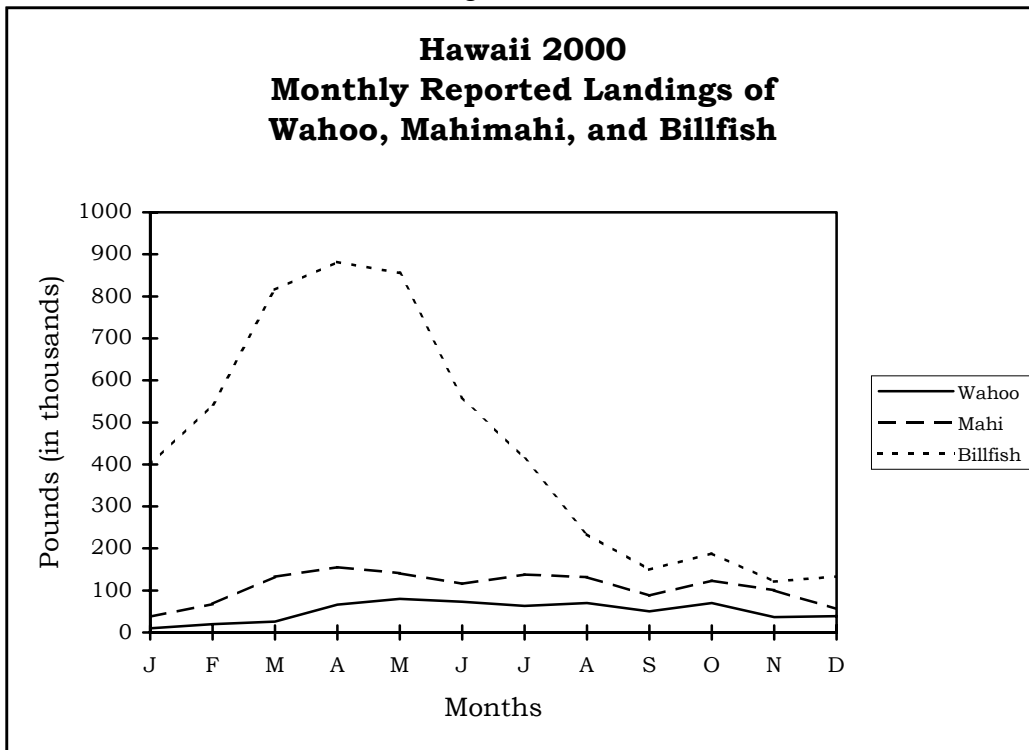


Figure V.1.4

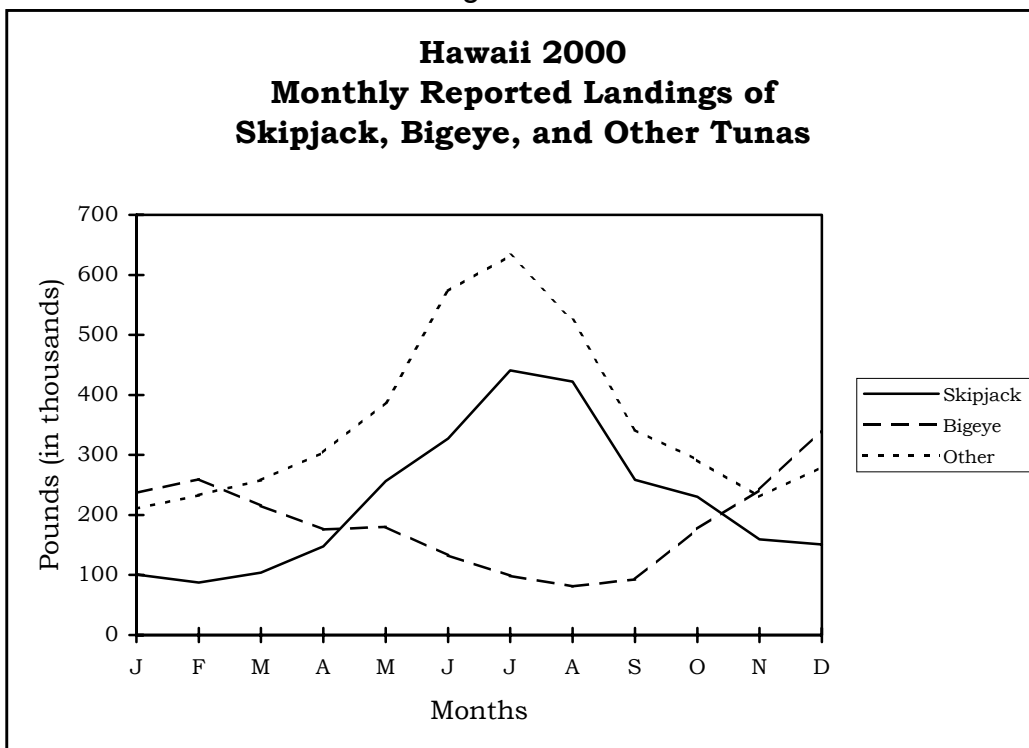


Figure V.1.5

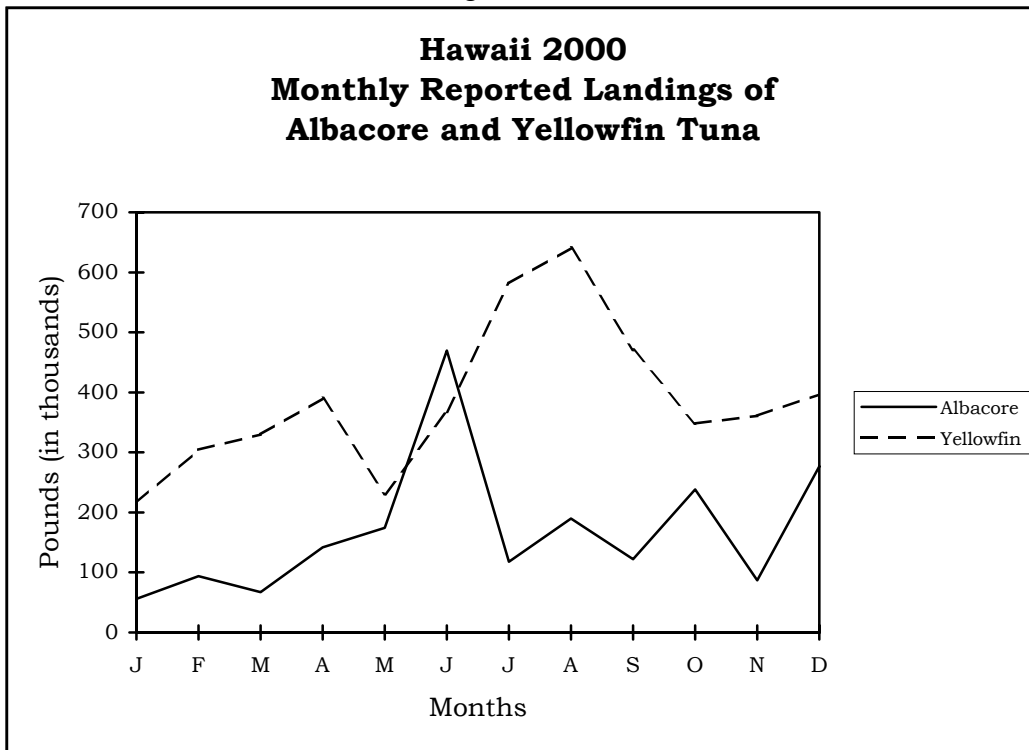


Figure V.2.1

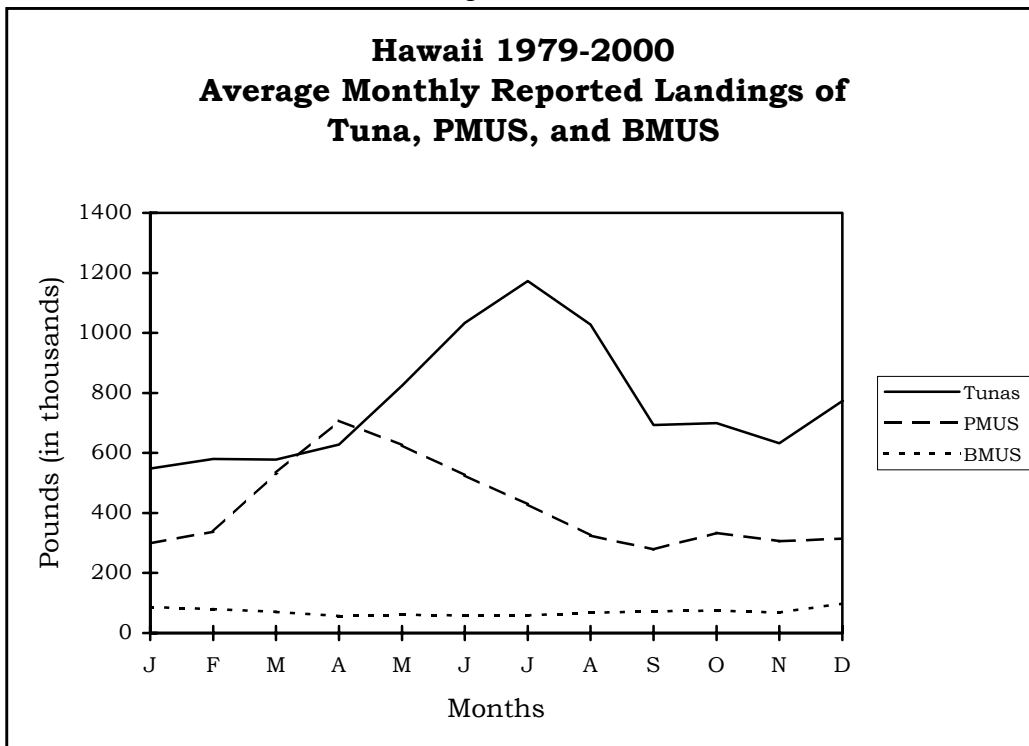


Figure V.2.2

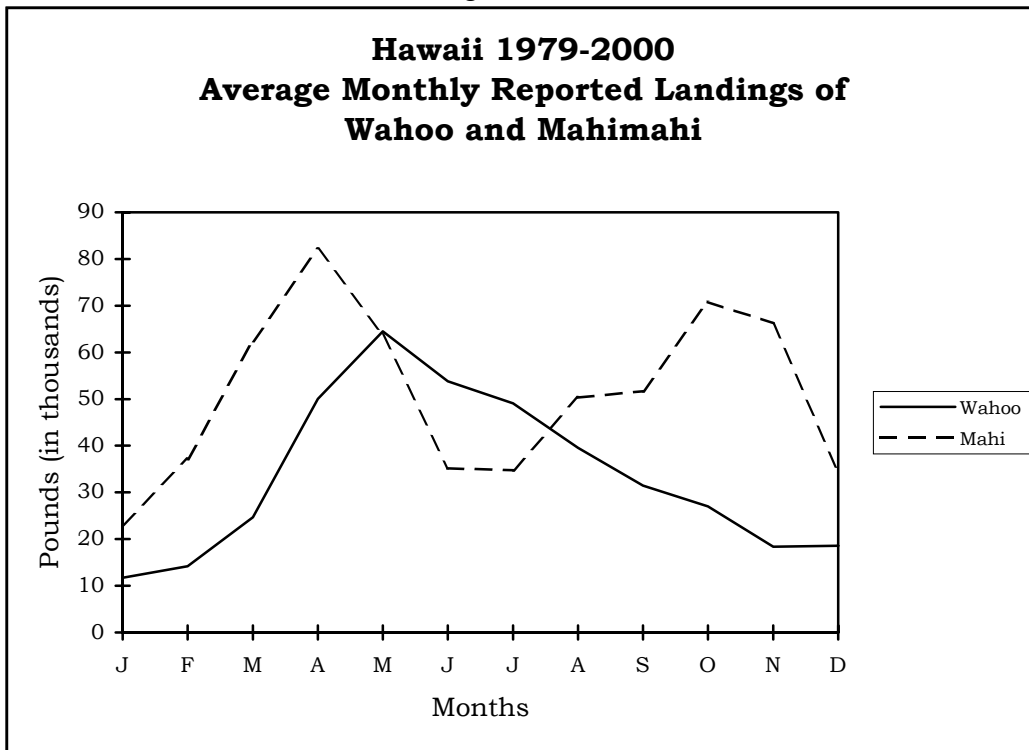


Figure V.2.3

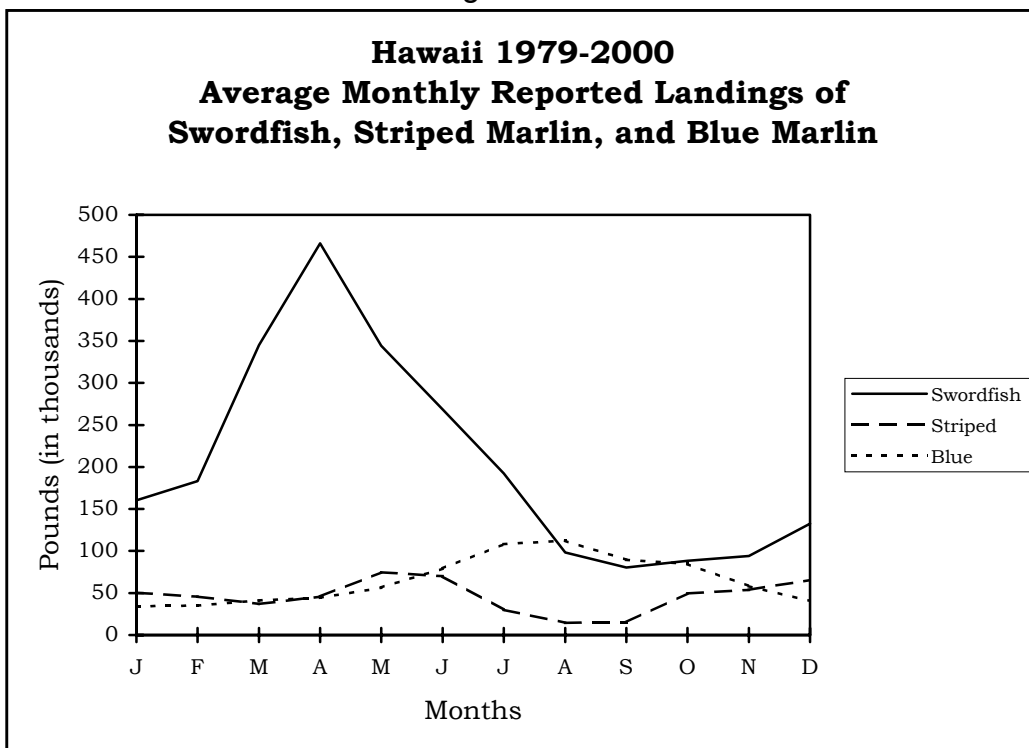


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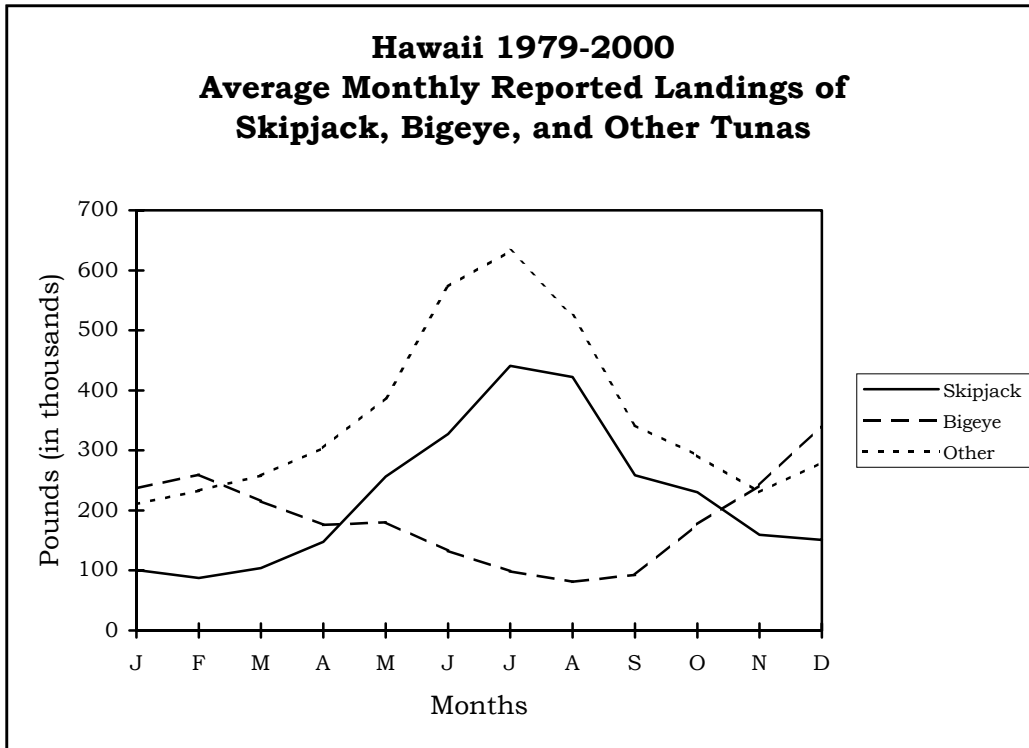


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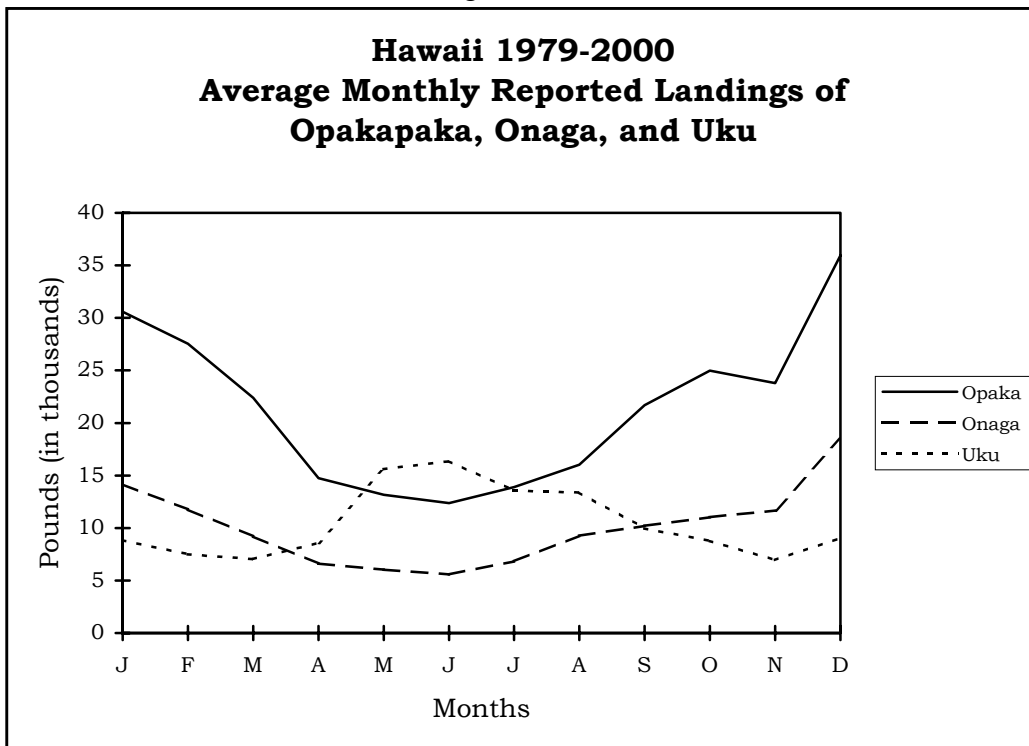


Figure V.2.6

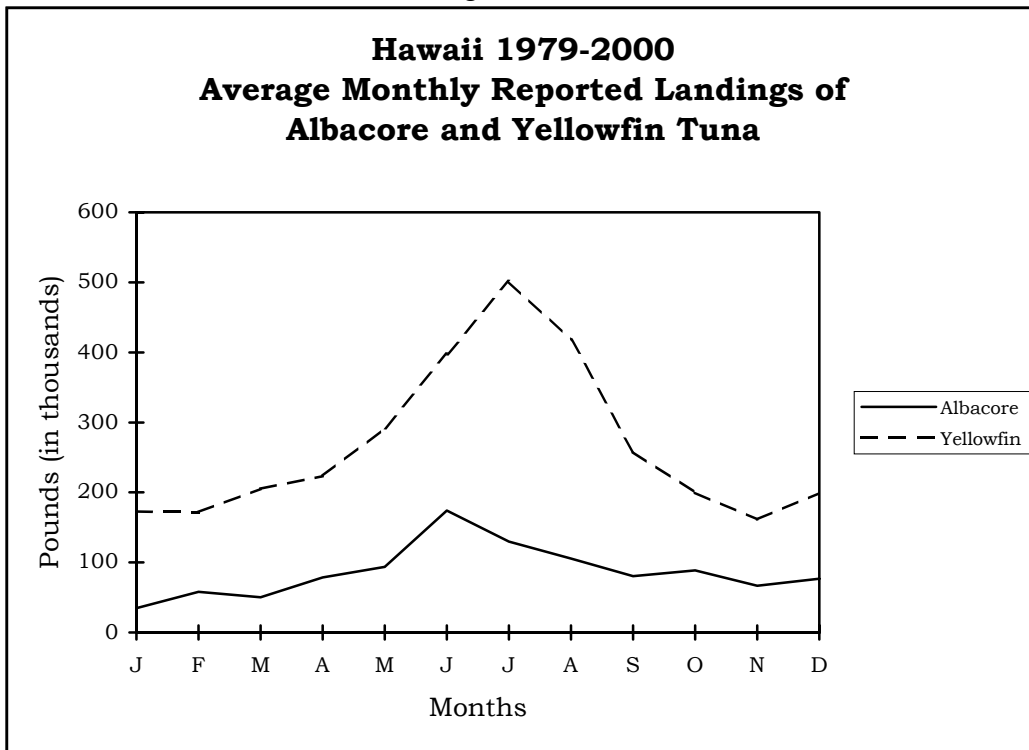


Figure V.2.7

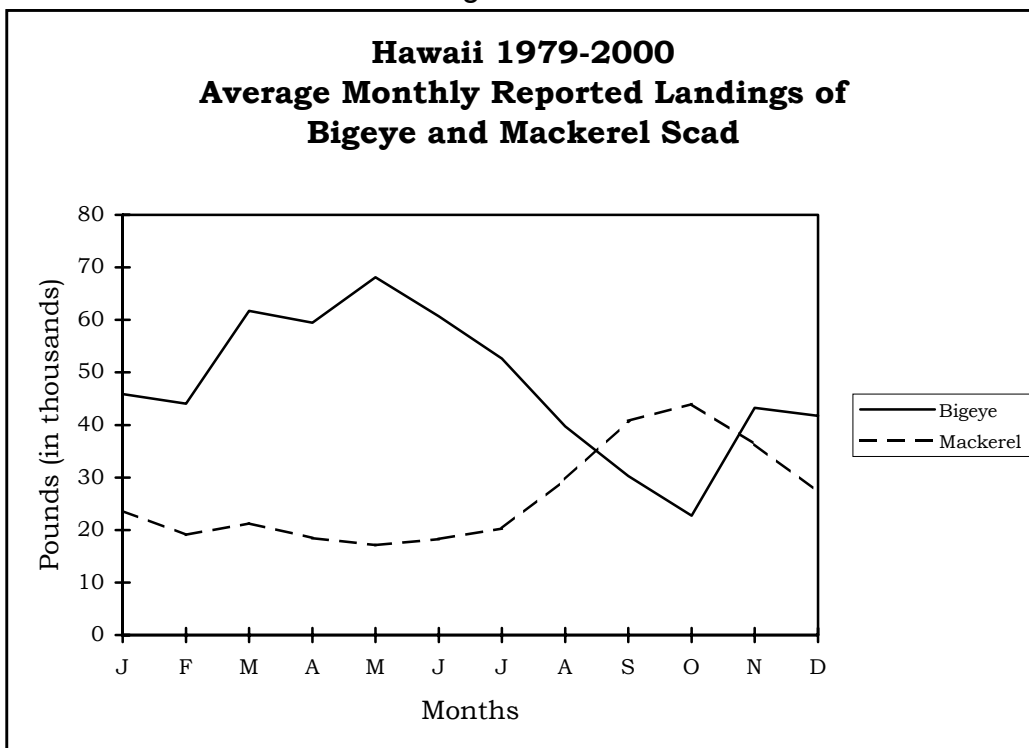


Figure V.2.8

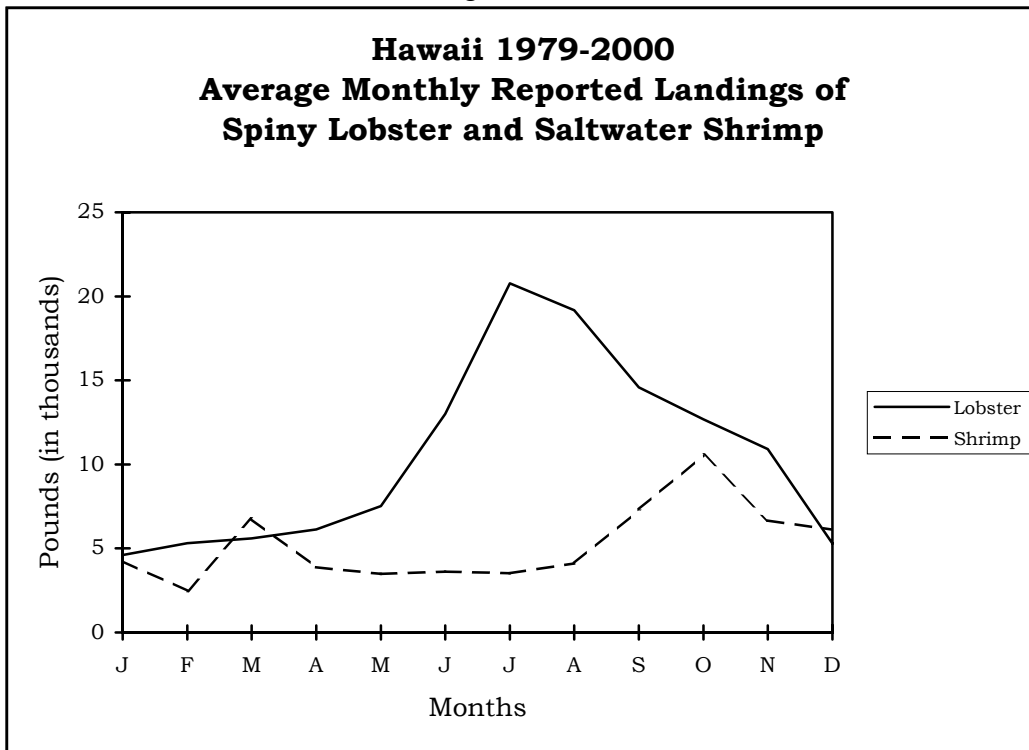


Figure V.3.1

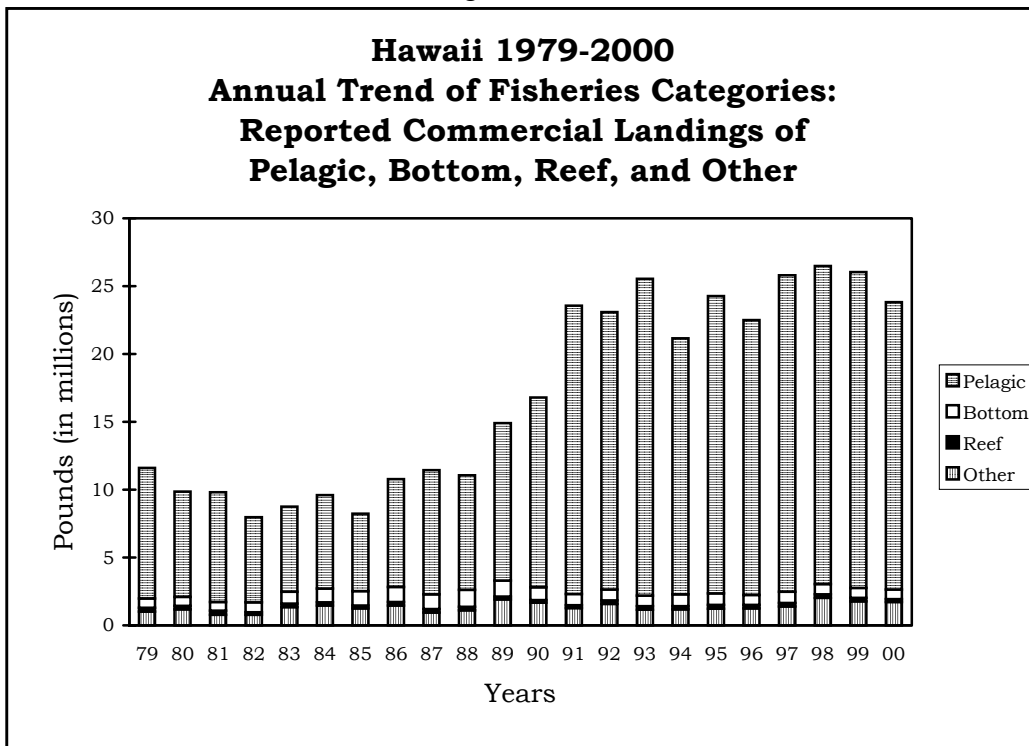


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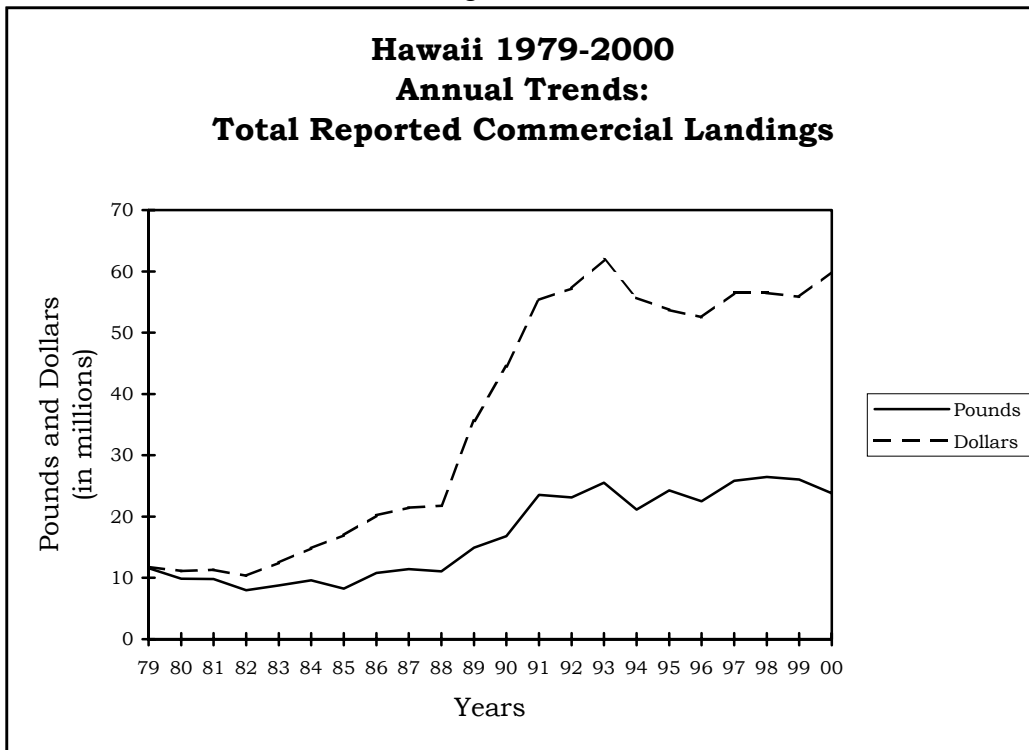


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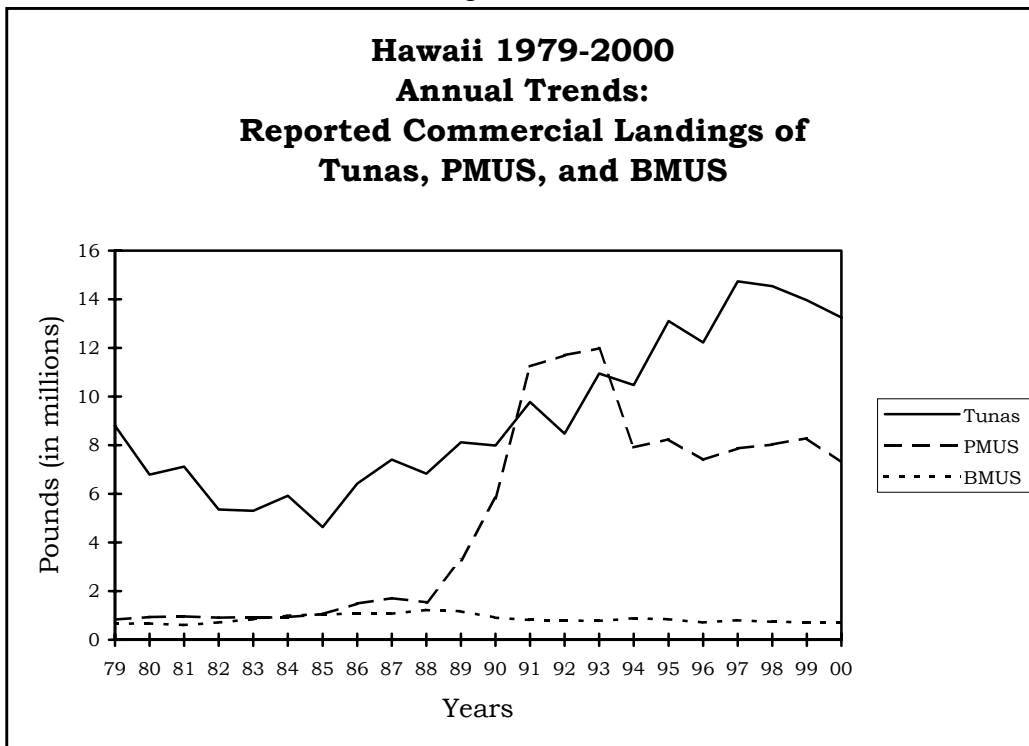


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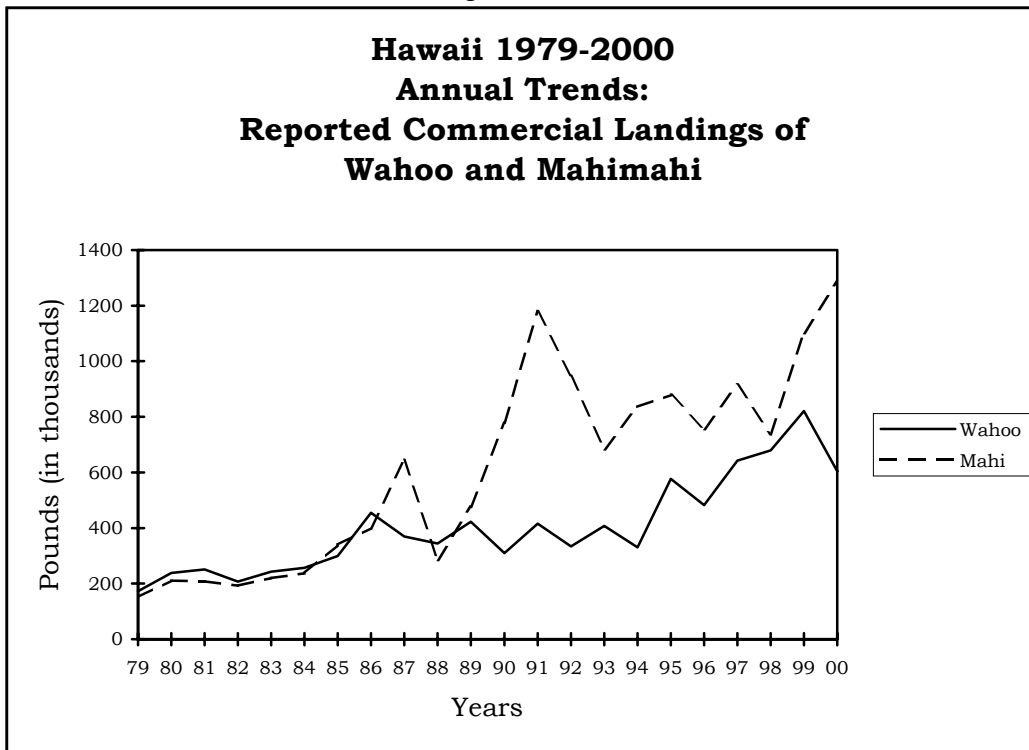


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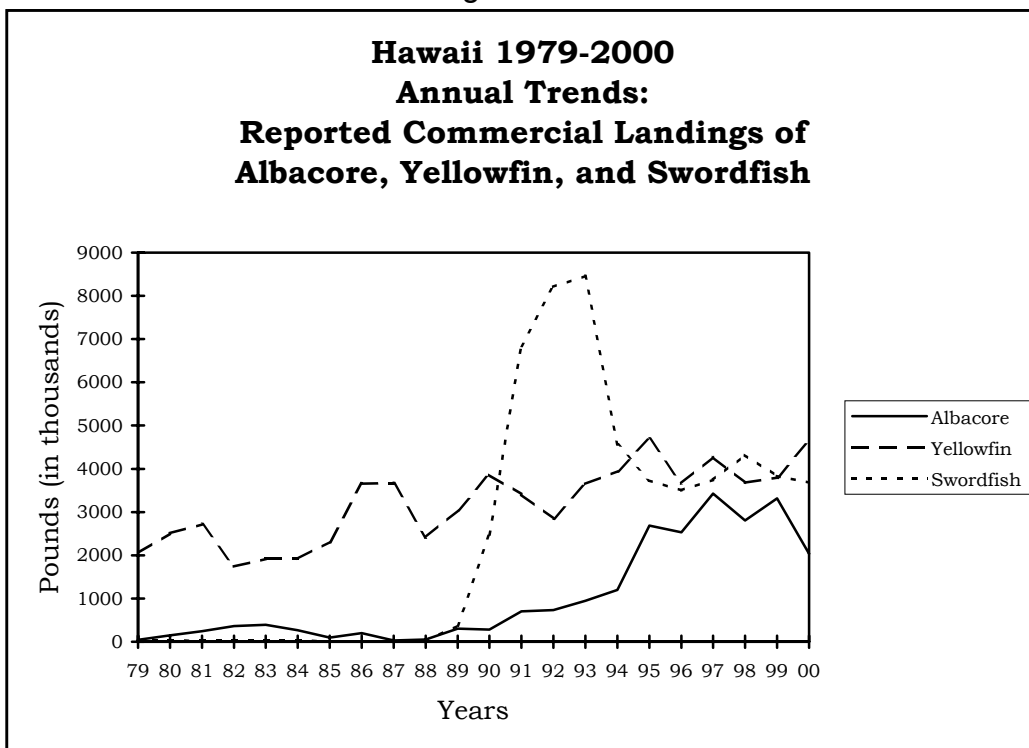


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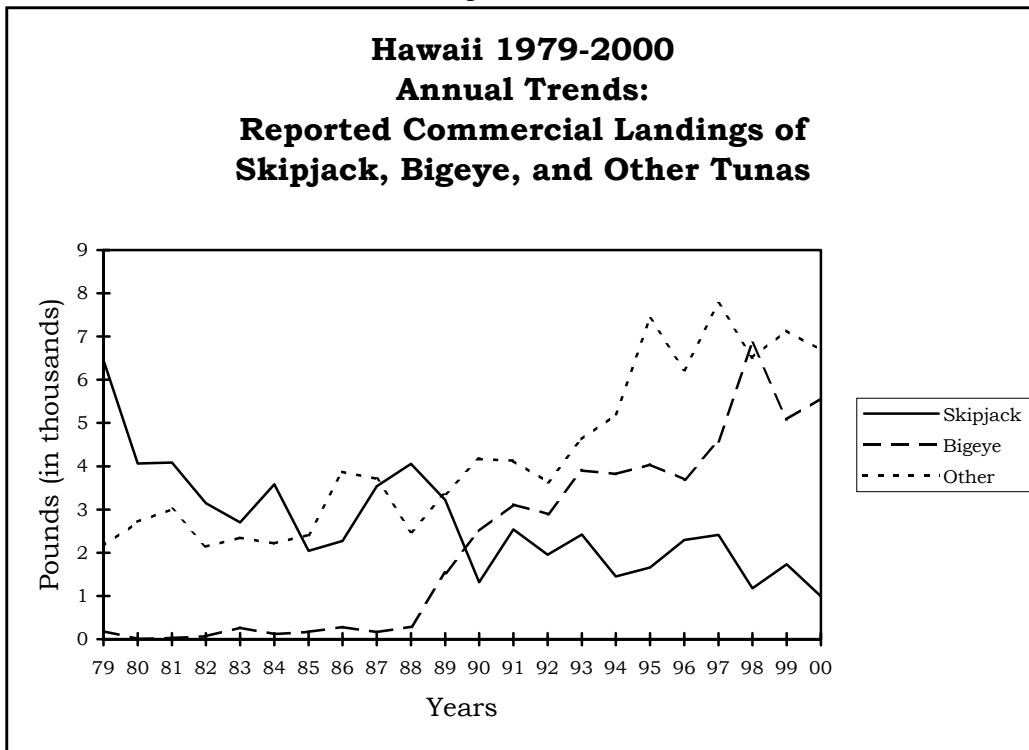


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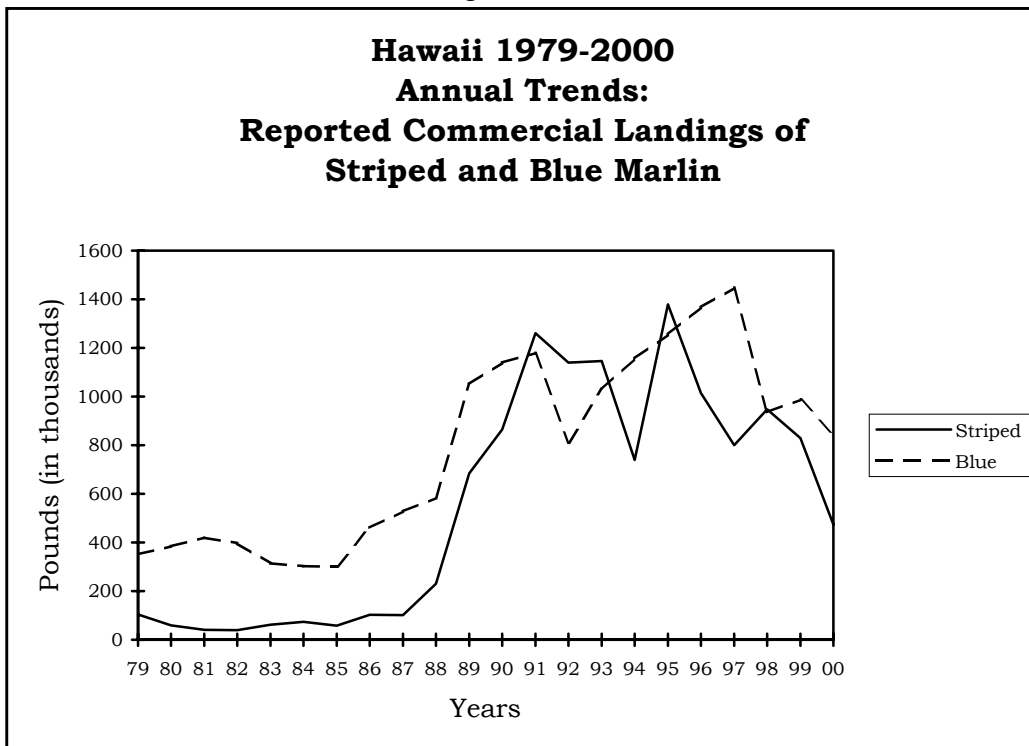


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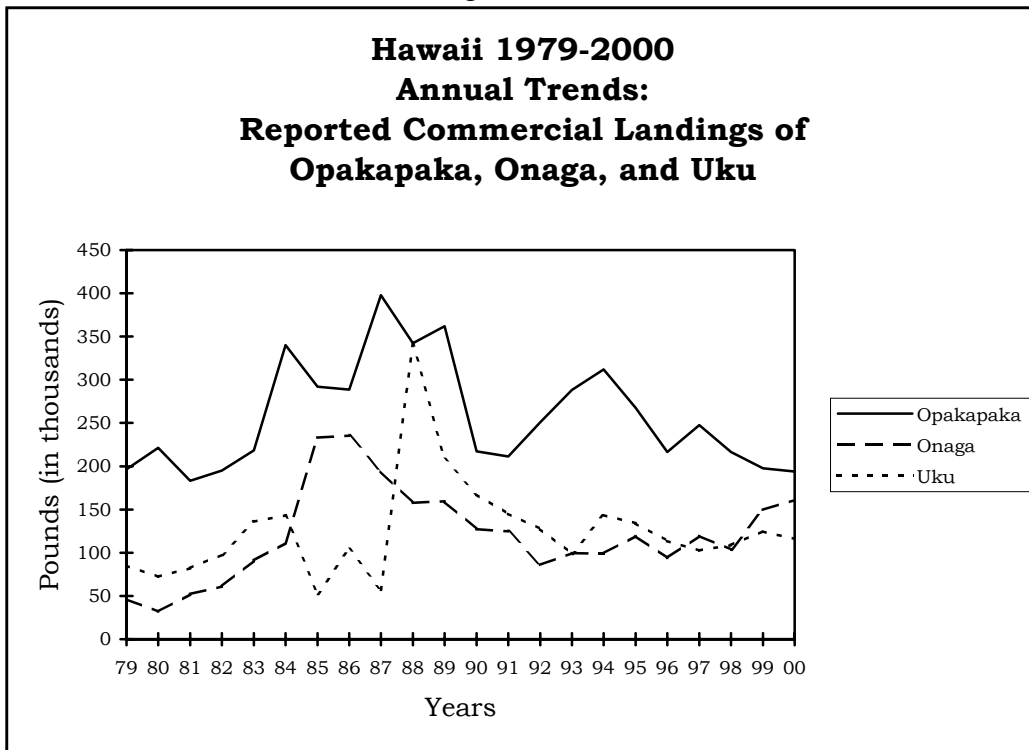


Figure V.3.9

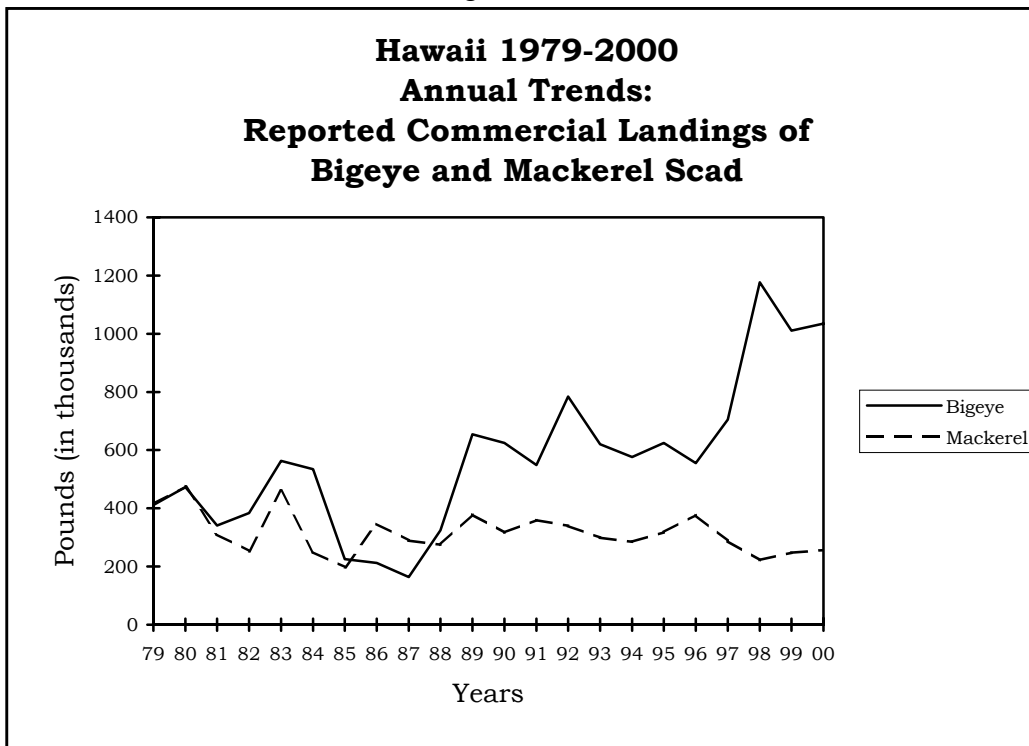


Figure V.3.10

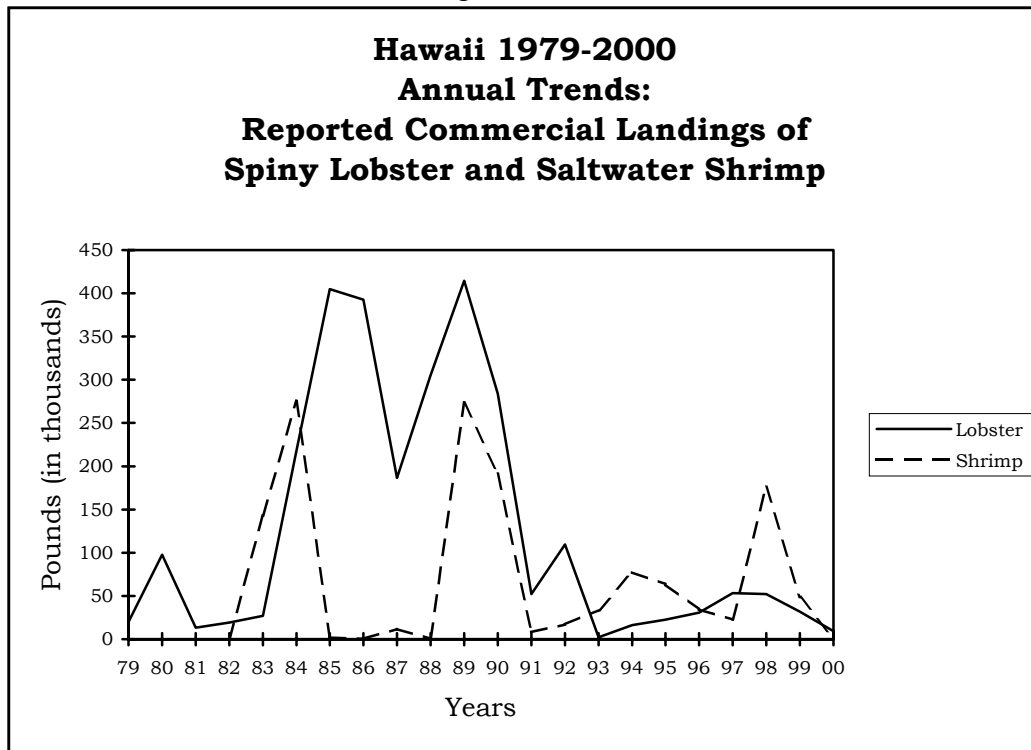


Figure V.4.1

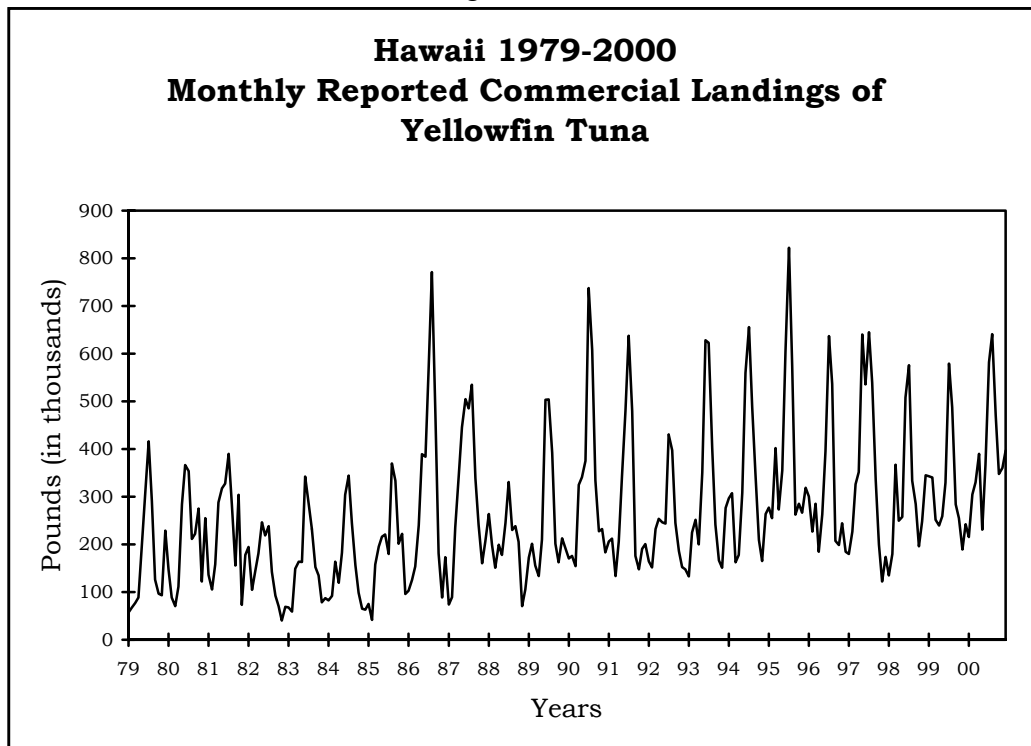


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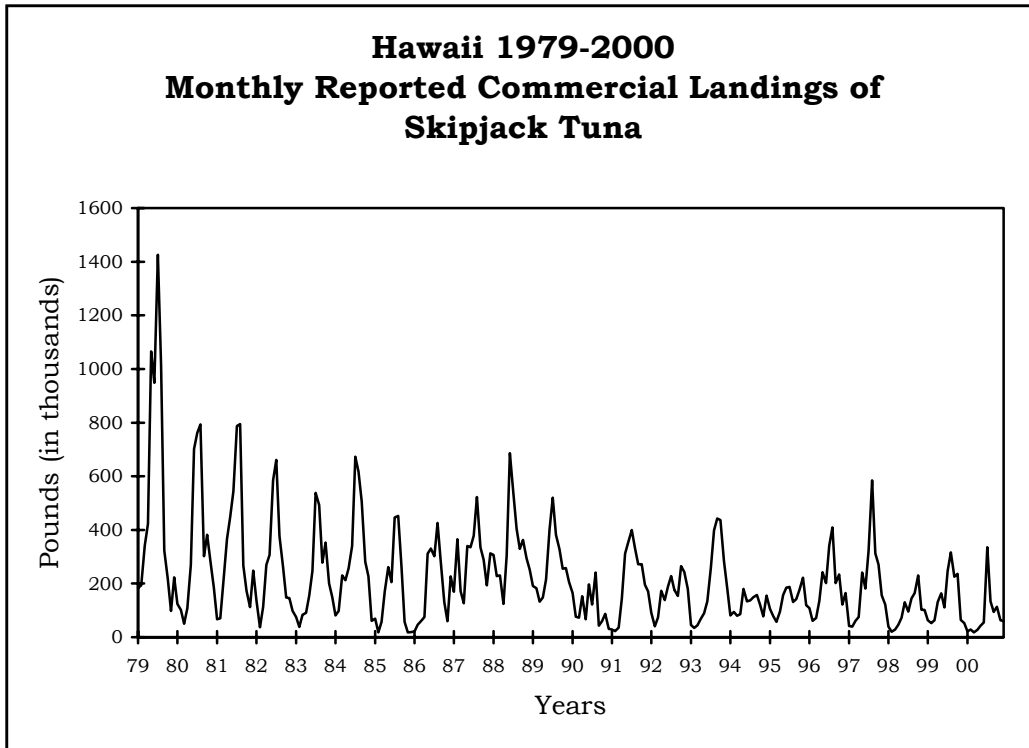


Figure V.4.3

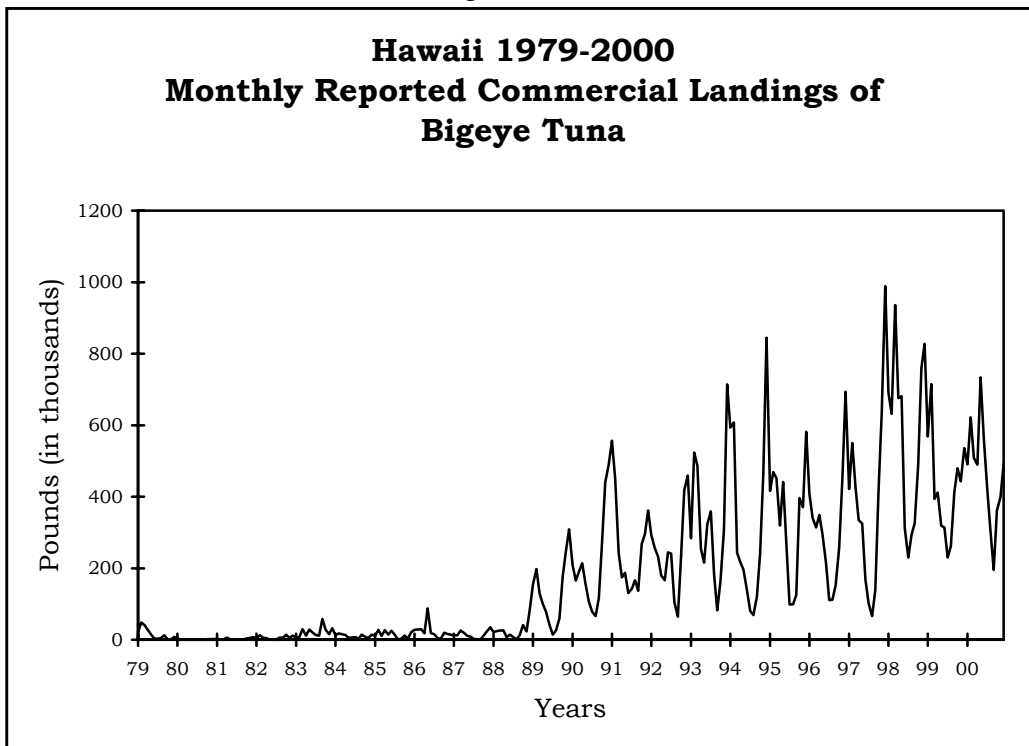


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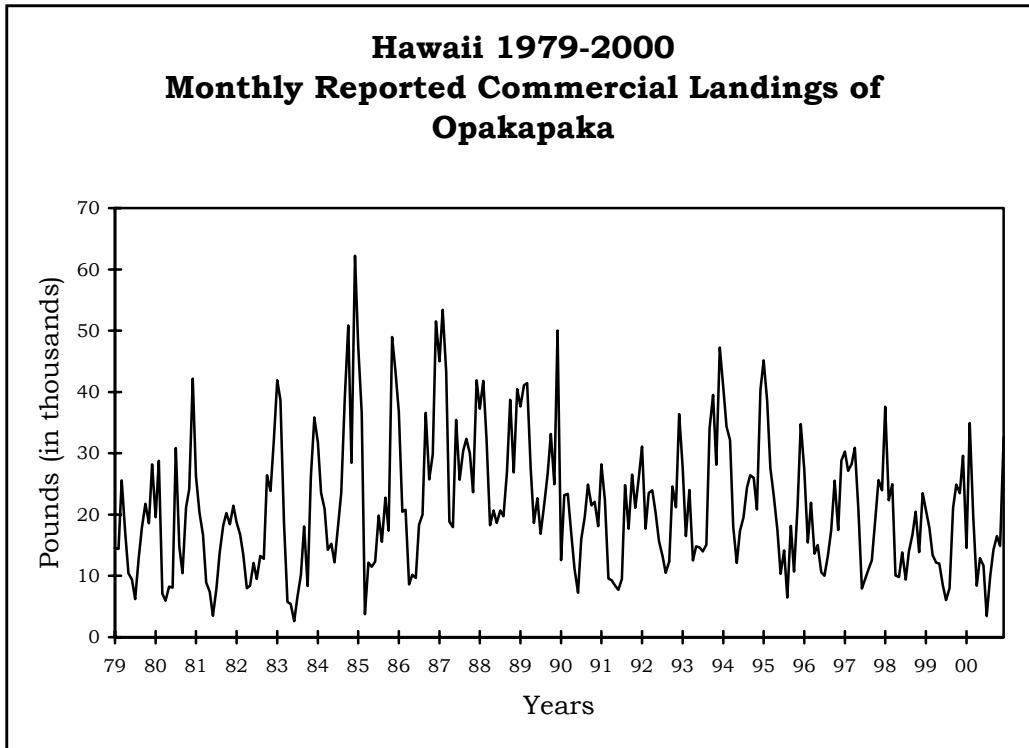


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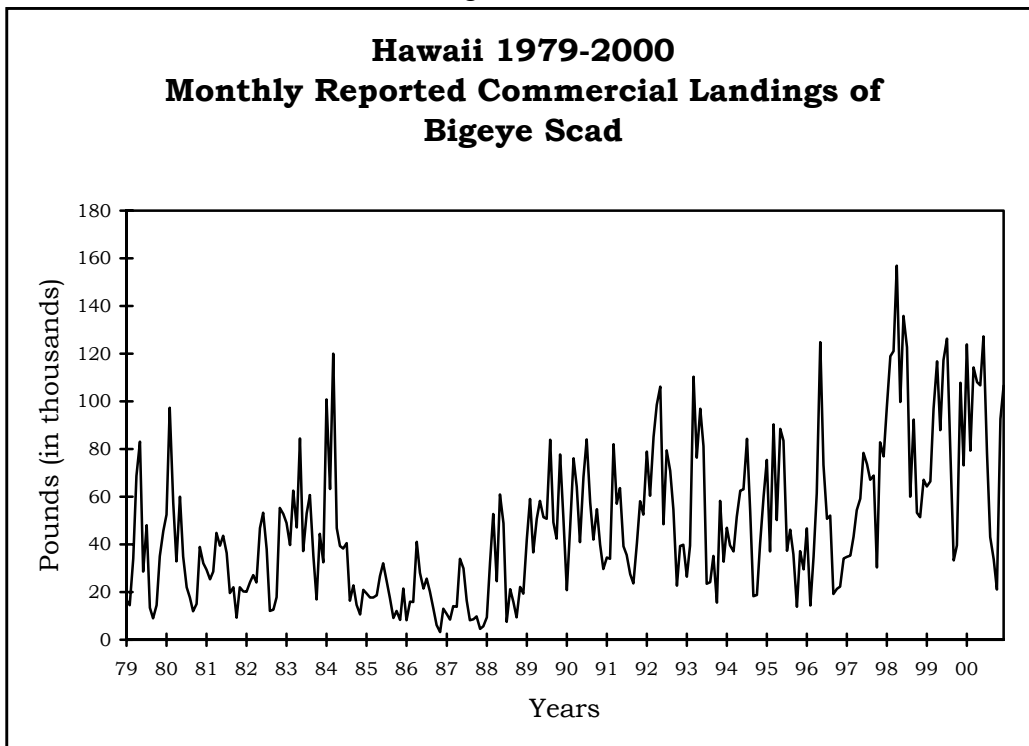


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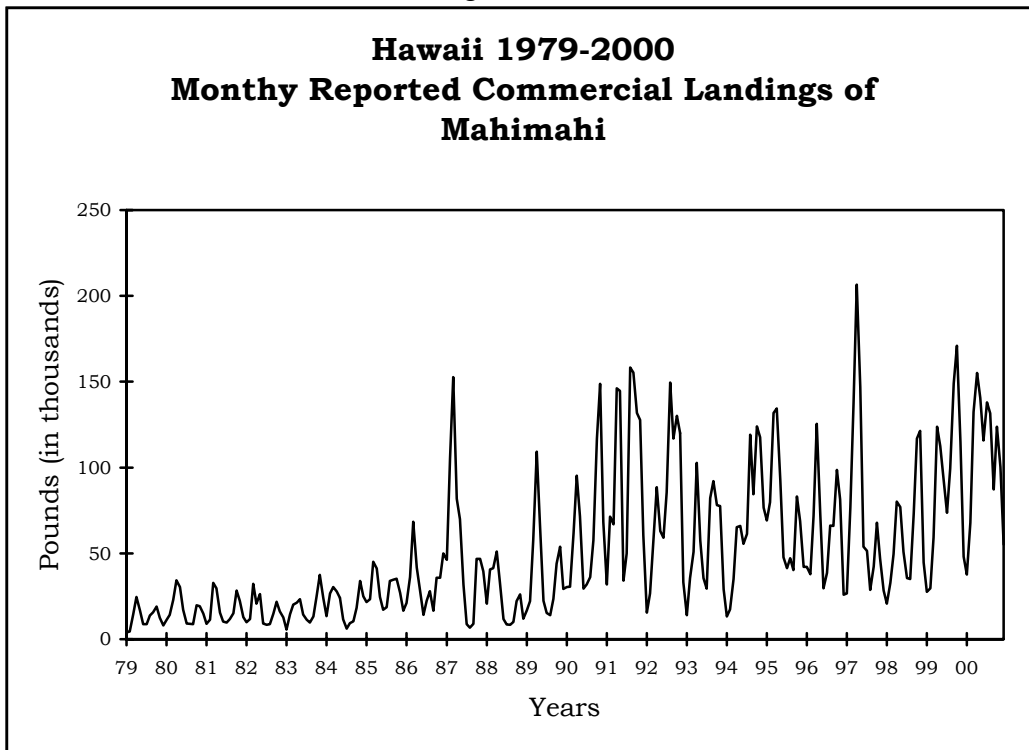


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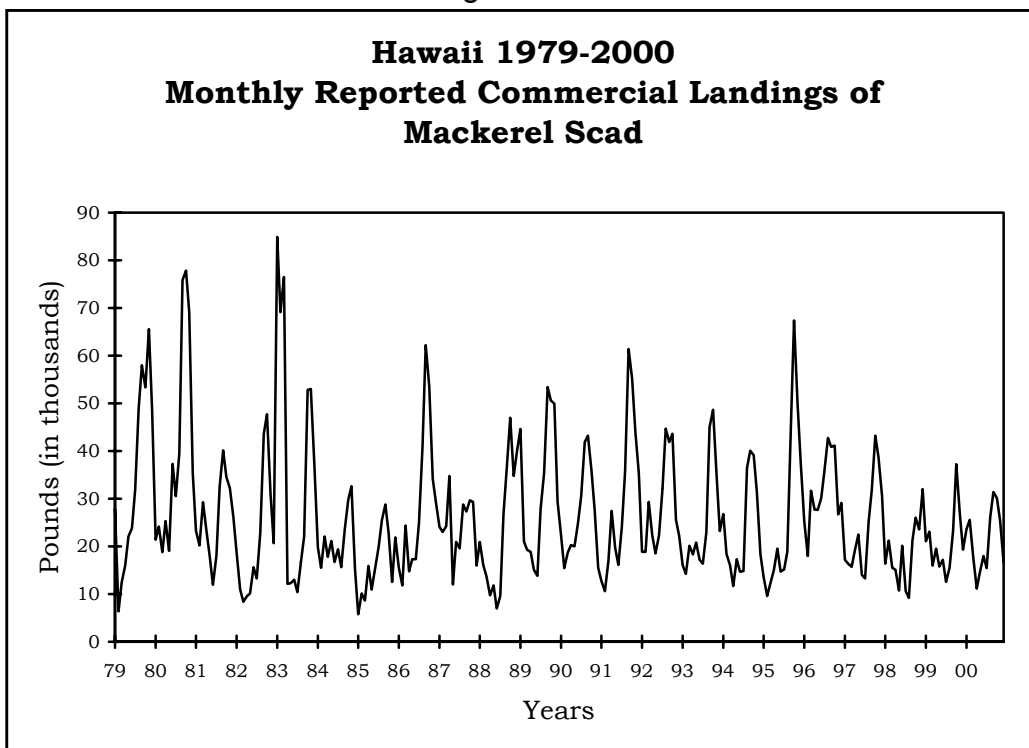


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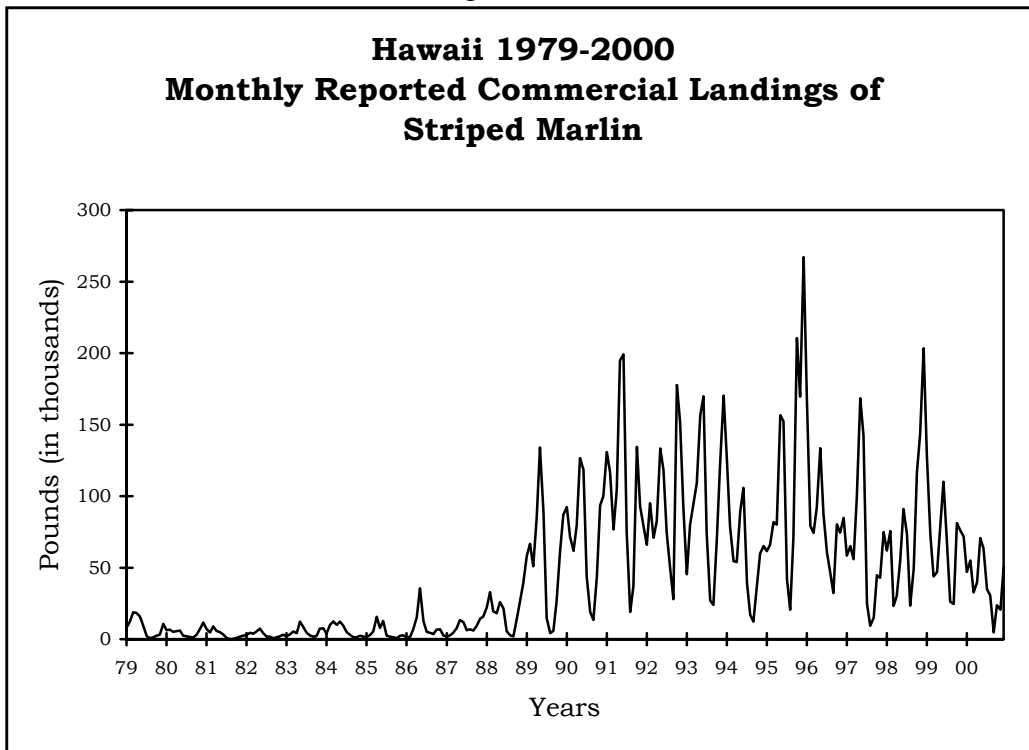


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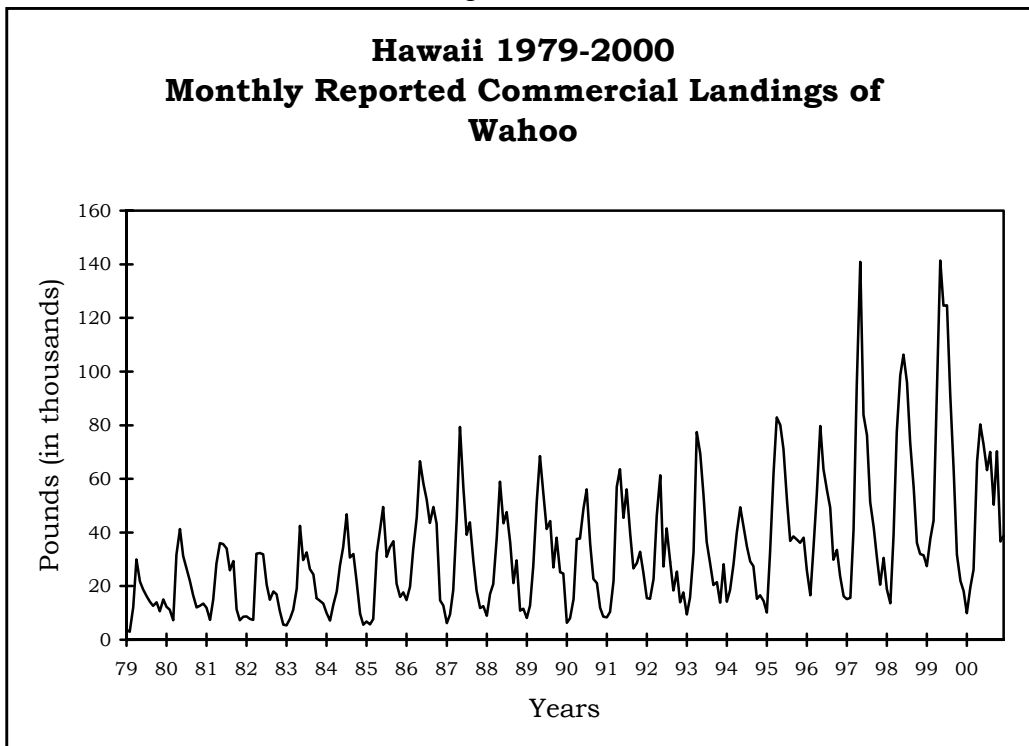


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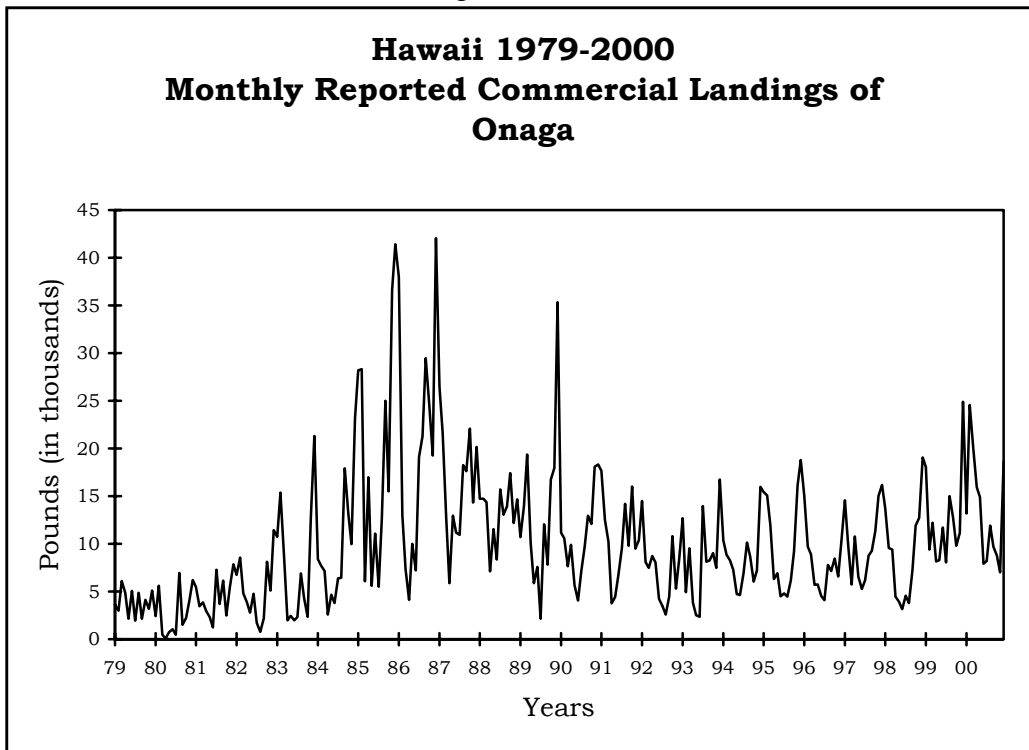


Figure V.4.11

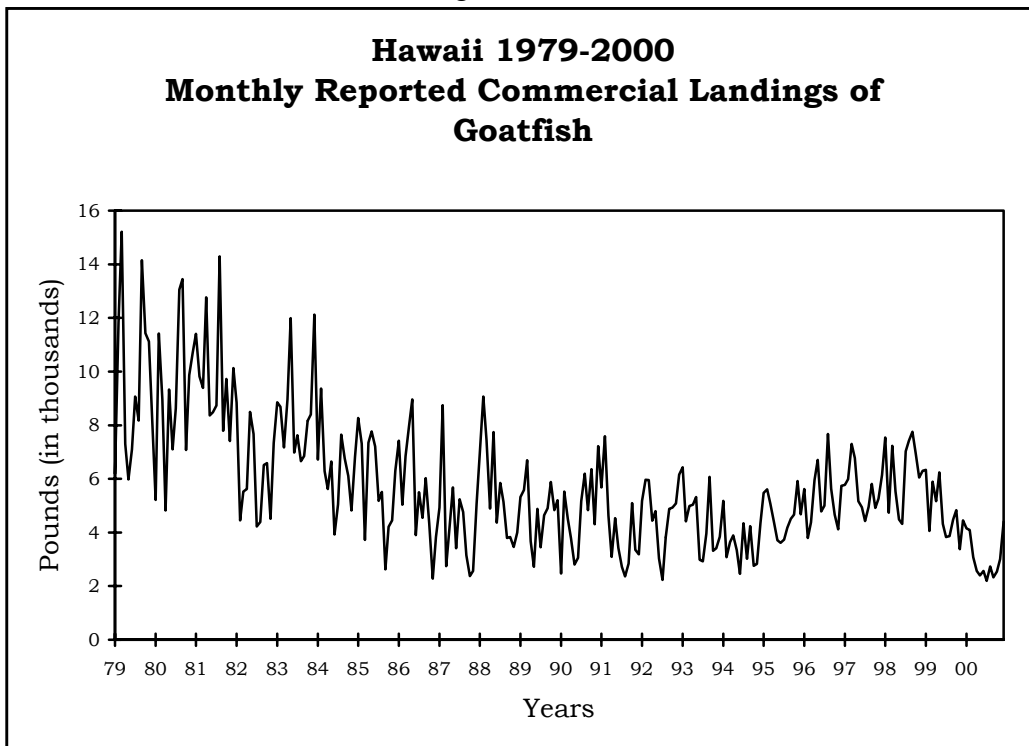


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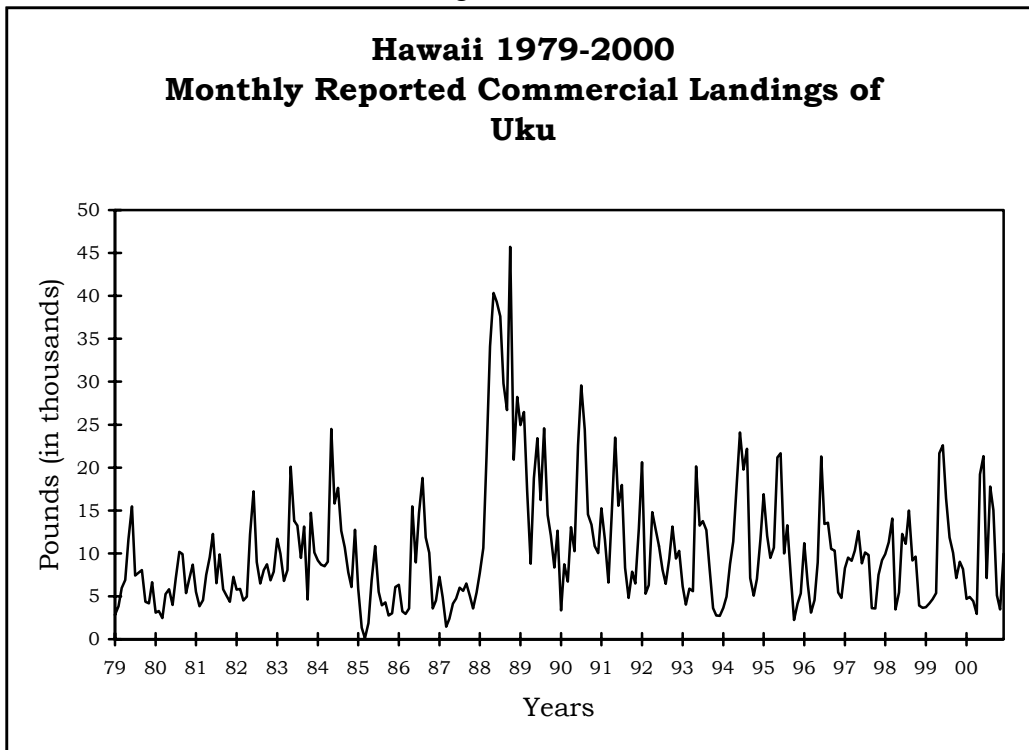


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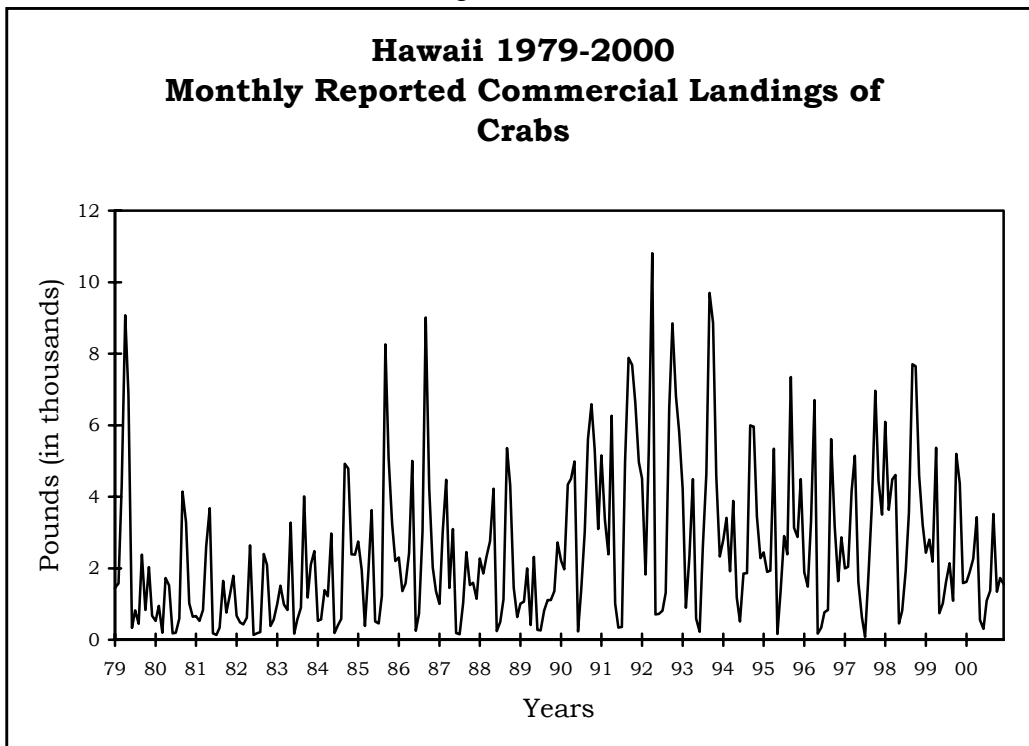


Figure V.4.14

